# American Horticulture.

IT is rather singular that nearly every allusion made to American horticulture, in the British journals, is stamped with prejudice and either real or affected ignorance. We are sorry to have to say this, but it is the truth, as every one familiar with British literature very well knows. Is it worth our while to inquire why?

In this "age of steam," as it has been aptly termed, when the Atlantic ocean is reduced to a mere *ferry*, less formidable to the traveler than the channel between Dover and Calais, or the Hudson river between Albany and New York, once was — when ten days, or less, carries the news of the week from continent to continent, and travelers, on business or pleasure, flock hither and thither by thousands, — in such times, too, of printing and reading as these are, when the publishers of New York, Boston, London, and Edinburgh are making liberal weekly exchanges of the literature of the two continents, with the daily papers of New York offered in the streets of all the large cities of Europe while scarce a week old, and European journals landed on our shores by the cart load from every steamer — with American booksellers in London, and English booksellers in New York — in short, with the most intimate connection, in every respect, that could possibly exist between two countries, — one would suppose that if popular error, ignorance, or prejudice, ever existed in either in regard to the other, it would by this time have been pretty thoroughly broken up. We fear, however, it is not so.

In Europe one generation after another has imbibed the idea, both from history and tradition, that the American continent was a vast wilderness of woods and prairies, with here and there a partial clearing or a rude village; that the population was a mixture of negroes, Indians, and semi-civilized whites; that in two or three of the maritime cities, favored by a more intimate intercourse with the old world, there was the germ of civilization and refinement, but beyond their limits all was wild, uncultivated, *barbarian*. These ideas are at this time considerably modified, we admit, but those who travel through the country places of Great Britain, and mingle and converse with the country people, know that there they are not *much* modified. Nor have the most intelligent classes—the men who read and travel, who know the world and note its progress—been able to divest themselves wholly of their early impressions. Prejudice is one of the most fatal frailties of human nature. So obstinately blind and deaf is it, that it will not allow its victims either to hear or see the slightest evidence that conflicts with the notions and traditions in which they have been reared.

The great exhibition of 1851, in London, produced some striking and memorable illustrations of the views and feelings which exist in England in regard to America. The articles we sent there were held up before the world as a laughing stock, by the English press. They were the standing theme for all the wit, and sarcasm, and ignorance of reporters; and it was only after careful and thorough investigations and trials, the results of which bore down the most inveterate prejudice, that some half-

way admissions of merit were grudgingly accorded. The English newspapers themselves have made this a matter of history.

The visits of Englishmen to this country have unfortunately done very little, if anything, to soften the prejudices and diffuse a more truthful information. We thought that Prof. JOHNSTON, the distinguished agriculturist who honored us with a visit in 1851, would, on his return to England, give some correct information respecting the condition of our rural affairs; but we, and all others who thought so, were sadly mistaken. He proved himself no exception to the general rule, and made a report of his tour quite unworthy a man of his reputation and acquirements—one, indeed, that he and his countrymen may well feel ashamed of in every respect. Some of the most important things he had to relate were, that in Western New York wheat culture was about to be abandoned; that the people of New England were not so rude as travelers said; that within twenty miles of Boston numerous country boxes, or cottages, of all fashions and sizes, with their white painted walls and green jalousies, skirted the rail way! What a correct opinion his hearers and readers must have formed of Western New York and the neighborhood of Boston from such statements as these! He was present at the great New York State Fair, at Syracuse, and had ample opportunities of seeing the great display of fruit there—the greatest we are sure he ever saw before—and instead of giving his countrymen some correct idea of the matter, he merely says that "fruits receive much attention from the State Society, and had an appropriate place assigned them." This was definite and valuable information, truly! What would we say of an American, supposed to be as competent to report correctly as Mr. JOHNSTON, who should visit an English exhibition and make such a meagre, worthless statement? Yet this is a fair sample of the way in which our affairs are usually disposed of by Europeans, and more especially English travelers. They traverse the country on railroads, at the rate of thirty or forty miles an hour, passing generally through the poorest lands; visit a few large towns, and return with the material for a book—and such a book! If they would do as Mr. OLMSTED did in England—throw aside their old prejudices, buckle on their knapsacks and foot it through the country from village to village, and from house to house, explore every field, and garden, and orchard, and barn-yard, and converse with the actual tiller of the soil of every condition—they might be able to say something creditable to us and to themselves,—at any rate to tell the truth. But they have no idea of embarking in such a tedious and toilsome way of exploring the country; they must do it by steam. They find a totally different state of things from what they have been accustomed to. There are no princely establishments to attract their attention, no great public gardens, no ducal conservatories, nor royal parks. We have but few retired, wealthy citizens, no monster estates. We are all workers, all busy, all in a hurry. Our buildings, fences, and roads, appear to them rude and temporary in comparison with the solid, substantial, costly and finished structures they have left behind; and hence they conclude that we have no gardens—that we know nothing, nor care nothing, about gardens or the more refined branches of culture—because we are not as England, we are nothing.

If the English would read our agricultural and horticultural journals as we do theirs, they would know us much better than they do through the medium of professional tourists; but not one Englishman in a thousand knows that we have such journals, and the few who do are innocent of deeming them worthy of perusal. A very short time ago, one of the most intelligent horticulturists in England, who, for twenty years or more, has had extensive and intimate business relations with this country, remarked in a letter to us, that he thought it was time we had a weekly paper in this country devoted to agriculture and horticulture! It is a good many years since this idea was practically entertained here.

In the February number of *Blackwood's Magazine*, we find a long, well written notice of McIntosh's "*Book of the Garden*," in which the following passage occurs. We are sorry to have to criticise an article which has afforded us so much real pleasure as this has, but it is necessary to our present purpose:

"The pre-requisite elements necessary to originate and cherish a love of the horticultural art may, perhaps, be stated to consist in the possession of some measure of wealth and of leisure, in intellectural culture and refinement of taste and feeling, in a moderately bad climate, and a tolerably sterile soil. The two last elements we enjoy in Scotland in very considerable perfection, and hence the high character of Scotch gardeners. The versatilities of our northern sky make them vigilant, alert, provident, and inventive. In sunny Italy, boon nature with liberal hand threw into the lap of every gatherer the choicest fruits and flowers, and the old Romans had few incentives to study the resources of the horticultural art. Roman horticulture, obedient to the suggestions of a southern clime, chiefly displayed itself in cool grottos, and irriguous fountains, and umbrageous walks shaded by the tall cypress, and the sweet-scented bay. In America they may have the wealth, but apparently not the

"Retired leisure,
That in trim gardens takes his pleasure."

Their pursuit of the 'all-mighty dollar' is too passionate and intense to admit of interruption from the recreations of horticulture. A feverish and absorbing worldliness can find no pleasure in the tranquil delights of a garden. Our cousins across the wave seem scarcely to have reached that state of intellectual culture and repose that must apparently precede the refinements of horticulture. In America the apples are excellent, and that best of all apples, the *Newtown Pippin*, will not thrive out of it; but there the apple grows all but spontaneously. Horticulture, however, is making progress in the United States, of which, perhaps, the best evidence is the existence of a periodical devoted to the subject and published in Boston, and the somewhat curious fact that the Kalmias and Rhododendrons originally imported into Britain from America, and improved by culture, are at this moment undergoing a second transportation from our nurseries to the land of their nativity. Their denization in Britain ought to invigorate their constitutions. And yet, having breathed the air of England, it is possible that their lungs may repel the atmosphere where slavery reigns, and that at the sad sight they may sicken and die."

Now is it not astonishing, that one who writes so intelligent of the garden, and is so thoroughly imbued with a love of it as this *Blackwood* reviewer evidently is, should mar his beautiful essay by such a narrow, illiberal allusion to American horticulture! Why could he not have rather passed America by unnoticed? Was it too good an

opportunity for Johnny Bull to show his estimate of his "cousins across the wave?" It is true, we admit, in regard to a certain class of our population, that "their pursuit of the almighty dollar is too passionate and intense to admit of interruption from the recreations of horticulture," but it is *not* true of all. As we have already said, we are all active and busy — we have few idlers. We have in America very few hereditary estates or fortunes; every man here must make his own fortune. Hence it is that we have so few that embark in horticulture to kill time and to make an outlet for their surplus wealth. But let any candid man survey the suburbs of our cities and towns, let him canvass our country villages, and say whether the pursuit of the dollars has destroyed the love of the beautiful. Let us take Boston as an example. How many of the active merchants, professional men, and mechanics of that city devote themselves to their gardens, and produce results that the whole country feels proud of. Where in Great Britain can such a wealth of gardening, genuine out-door gardening—we do not speak of green-house gardening—as the Boston shows present? Let us take MARSHALL P. WILDER, as the most prominent example of a large class. The good he has done by his gardening labors will compare favorably with that of the Duke of Devonshire or the most illustrious benefactors of horticulture in the most advanced gardening country in the world. We may take our own little town of Rochester, 400 miles from the sea coast and not over forty years old, with a population of about 40,000, and even here we can point out a very large number of men closely devoted to commercial or professional pursuits who enjoy the pleasures of a garden. Small it may be, but well filled with the best of fruits and the most beautiful trees and shrubs and roses, that the world can produce. We have in our mind a friend, who is at the same time a busy lawyer and an active politician, who has a fruit garden, that for its size might challenge all Scotland, and his roses are the newest and best that can be purchased. He was able to show his neighbors the famous *Geant des Batailles*, *Chromatella*, and other famous varieties, while they were yet novelties in Europe. We could point to many of similar taste, and we could go through every town and village in the country and show that such men and such tastes are far from being rare.

Is there another country under heaven where there are so many gardens? — Scarcely a sober, able-bodied man in America, out of the large cities, but can boast of a garden. And that garden is not a mere tenement — *it is his own;* and when he plants his trees, and shrubs, and flowers, he feels that no human being has any right or title to them but himself and his family. What a small proportion of the population of Great Britain can rejoice in such a feeling. How few British subjects can go into their gardens with the same manly indifference, or can feel the same love and attachment to their homes, or have such inducements to make them comfortable and beautiful! How much of that which is squandered on the mammoth princely garden establishments of Great Britain is wrung from the enslaved million who never know what it is to taste even the luxury of a fresh salad — who cannot once a year buy a bunch of poor radishes, or a half withered rhubarb from the "green market" — who are never permitted to gratify the sense of smell with the perfume of a rose, and

whose "hearts never leap when the first sun's drop shows its welcome face on the green"—who, in short, never *see* a garden but through some aristocratic enclosure, or over the top of some exclusive, everlasting wall of stone, like that which encircles our penitentiaries! Look at the exhibitions of England, and you will see to what class the privilege of gardening is confined; the contributions are either from professional cultivators or from the titled nobility. How is it here? The contributors are working people—merchants and mechanics in the humblest walks of life—the large majority being their own gardeners; their productions, the fruit of their own labor, and skill, and taste.

But horticulture is really making progress in the United States, notwithstanding our "absorbing worldliness" and low state of intellectual culture. The best evidence of this progress is the existence of a horticultural journal in Boston, and the importation of Kalmias and Rhododendrons from Britain!

What evidence! Let us give our Scotch friend, who we fear does not see far beyond his own misty hills, some better evidence, or, at least more of it. We have *four* journals exclusively devoted to horticultnre—one in Boston, one in Philadelphia, one in Cincinnati, and one in Rochester. The last has been in existence some seven years or more. But these are not all. We dare say that we might enumerate journals by the score, weekly and monthly, from Maine to Louisiana, all of which are devoted to agriculture and horticulture combined, and many of them with a circulation twenty-fold greater than the most popular journal published in the good city of Edinburgh—the modern Athens. How many horticultural societies have we! Not less than a dozen in the State of New York alone!—we could not guess at the number in New England and the West—besides our pomological societies, &c., &c. As to the importation of trees and plants, ask Messrs. Rivers, Skirving, Le Roy, and fifty other European nurserymen, and they will reply that Americans not only import Rhododendrons and Kalmias, but fruit trees, and ornamental trees and shrubs, and roses, by the *ship-load*—absolutely draining the nurseries of Europe to the dregs. The catalogues of nurserymen and florists are ransacked, and every novelty must be had, from the newest Daisy or Hollyhock to the *Victoria regia* itself. The rare and costly orchids of India, the evergreens of North-West America, the Rhododendrons of the Himalaya, the novelties from the "celestial empire;" in fact everything new and wonderful we must have as soon as it is announced. If importing plants be a test of our taste and progress, we are in a very hopeful state.

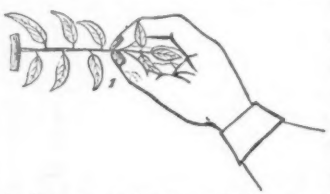
The allusion to slavery is far fetched and sadly out of place. Only for the well known propensity that exists on the other side the water to dabble in this matter on all occasions, in season and out of season, in fact never to name America without hinting at it, we should be quite at a loss to know why it was introduced here. In the discussion of political subjects, such a thrust would have been excusable; for, unfortunately, there seems to be in politics a something that tends to create and foster a hostile or unfriendly spirit between either nations or parties who represent opposite principles; but in horticulture, there is everything to promote harmony and to cherish whatever there be in human nature that is liberal, open-hearted and magnanimous.

Its mission is to multiply the comforts of life, to refine and elevate many tastes and feelings,—in a word, to make the world happier and better. In horticulture, we should allow no geographical boundaries to limit our sympathies or friendship, but recognize as a brother every laborer in the vineyard, whether his lot be cast in the temperate or torrid zone, under the government of a republic, or a monarchy, or a despotism.

## A FEW HINTS ON PINCHING.

"Train up a child in the way he should go" is a venerable maxim, and one that all good parents endeavor to carry into practice. Trees, like children, require training in their youth; the wise and skillful cultivator should aim at giving every shoot and branch the right direction while young and pliable, and nip every defect or deformity in the bud. The practice of too many who plant and cultivate trees, is either to prune them once a year, say in winter or spring, or else leave them entirely to nature; the consequence is that unless in rare cases where nature has endowed a tree with remarkable qualities as to regularity of growth, they grow up without that balance and symmetry which is always pleasing to the eye and necessary to their vigor, longevity, and productiveness. It should be well understood by every man who plants a tree, that from the moment it begins to unfold its leaves and develop new shoots, it requires constant care. This is especially the case with garden trees, which ought always to be beautiful as well as useful. We do not mean that a man should continually busy himself among a few trees, or waste his time in frivolous operations, as though they were a hobby-horse which he had nothing to do but ride; we can countenance nothing of this sort, but we insist upon constant discriminating care, a look over the trees once or twice a week, in order that every defect of growth, attack of insects, accidents, or diseases, may be timely discovered and the proper remedy applied. There is economy in this, if people but knew it, and all experienced cultivators do know it.

The chief remedy for defects of growth during the growing season is the operation termed *pinching*—nipping with the finger and thumb (fig. 1) the soft young shoots.



The practical part of this operation is plain enough, but the particular time at which it ought to be performed requires both judgment and experience, in order that it may accomplish the end aimed at. Pinching is applied to all trees and plants to improve or modify their forms. The plant grower who aims at producing strong, bushy, well formed plants, arrests the tendency to grow tall and lean by commencing with his young plant when only a few inches high; and he follows up this pinching or stopping at regular intervals in the plant's growth, until he has secured such a profusion and regularity of lateral branches as to make his complete

plant a wonder. Such plants are the most striking examples of the influence of the pinching process that we can find in the whole range of horticulture. But this plant grower applies the finger and thumb in season—he does not wait till his plant has grown tall and misshapen, and then go to work to reform it. As soon as he sees well formed buds in the axils of the leaves, he knows that by stopping the terminal growth these buds will be forced into growth, and produce lateral shoots.

In the management of trees we find it very common for one or more branches to start with an undue share of vigor, and weaken all other parts of the tree by drawing and appropriating all the nutriment to themselves. A slight bruise or a bend, perhaps, will lead to the development of one of these branches at a point where no branch is required. Fig. 2 represents an instance of this kind. The tree became slightly bent, and this arrested the continuous flow of sap toward the summit; the consequence was the development of a very strong shoot, what the French designate very properly as a "*gourmand*." It controlled the whole tree, and left it at the end of the season in the misshapen condition represented in the cut. Now the careful cultivator would have observed the first symptoms of these results; that strong shoot pushing out with such undue vigor would at once have attracted his attention, and he would have placed his tree in an upright position, to aid the regular ascent and free circulation of the sap, and have checked this misshaped shoot, and thus secured an equal distribution of growth that would have left him at the end of the season with a tree something like fig. 3.

In the management of trees trained as dwarfs, pyramids, or espaliers, pinching is an indispensable operation. In almost all trees there is a natural tendency to grow most vigorously towards the top and at the extremeties of the branches, and this requires to be kept in continual check during the growing season; for if one portion of a tree be permitted but for a short time to grow more vigorously than the others, the balance is destroyed and much time and severe measures are required to restore it. In the case of young trees that have been cut back for the purpose of producing the pyramid form, it often happens that three or four buds at the summit push so vigorously as to draw all the sap by those below them, and a tree somewhat like fig. 4 is produced. Now if the upper shoots next the leader had been checked by pinching, the lower branches would have been favored, and we would have got a tree like fig. 5.

In this way, under a great variety of circumstances, pinching is applied to counteract the defects of pruning and of growth. At this time the young shoots of trees

are pushing vigorously, and when they have attained say two inches in length, a selection may be made of such as ought to be preserved, and all others that have a vigorous appearance may be checked at once. All superfluous shoots, however, do not need pinching; there are a large number that never attain any considerable dimensions, and may be left entire. These are easily distinguished by the slenderness and smallness of their base. It would be improper to pinch these, as they do not affect the growth of leading shoots, and aid in maintaining the growth and strength of the parts where they are situated; besides, they generally assume the character of fruit branches in a year or two, and may be turned to good account.

It should be remembered that pinching has always a greater influence when applied early. If we wait until we see plump, well formed buds on the shoots, the pinching will have comparatively little effect, as the bud nearest the pinched end will immediately push, and the prolongation of the shoot will be but little retarded. But if pinched before the buds are formed perfectly, it takes them some time to effect their growth, and by this time the flow of sap has been, in a great measure, diverted into other channels; and even if the buds do break, the shoot does not acquire much extension, as it most generally becomes a *fruit branch*. It is on this principle that pinching is performed to promote fertility; sometimes very bad results follow *late* pinching. Towards autumn a shoot furnished with well formed buds is checked, and immediately several of these buds push, and make weak, watery shoots that are killed by the winter. These results are often produced by cutting scions for buds in the months of August and September. In some cases when the tree is naturally disposed to early fruitfulness, the buds become fruit buds; but in very many cases they start into growth. Grape vines are very often urged into this anticipated growth by stopping the canes at an improper period. This is a point that demands particular care in the management of both trees and vines.

We have touched somewhat minutely upon this subject in order to answer the queries of several correspondents. We should gladly give more ample explanations if space permitted, but we think that the hints we have thrown out will enable intelligent amateurs to prosecute the summer management of their trees with some measure of success. One thing we must impress upon all who attempt to control the growth or forms of trees, which is, that they must study well the laws of growth in general, and the particular mode and habits of growth and bearing of both species and varieties. This will appear quite evident to all who will take the trouble to observe how much difference there is between the opening of both leaf buds and blossoms on different varieties of the same species. One variety of apple will have made shoots two inches long before another has opened a bud. The *Northern Spy* is as much as ten days leafless after many other sorts are green. The *Belle d' Orleans* cherry is in leaf and blossom ten days before many others. We quote these instances merely to draw attention to this interesting and important point.

# ASIATIC CONIFERS.*

BY JOHN SAUL, WASHINGTON, D. C.

CRYPTOMERIA JAPONICA — *The Japan Cedar.*—What a beautiful tree is this! and how useful in our climate, where I have no doubt it will be as much at home as in the Provinces of Northern China; it is a very rapid, vigorous grower—I have known a young plant in England grow four and a half feet in one summer, and this is not unusual. In this country it is also exceedingly rapid in its growth. Plants of it, which I had seen in Britain about twelve feet high and feathered to the ground, were already a combination of grace and beauty. Too much cannot be said of this tree, of which, indeed, as yet, we know but little. Hear Mr. FORTUNE on it: "Never in my life had I seen such a view as this—so grand, so sublime. High ranges of mountains were towering on my right and on my left, while before me, as far as the eye could reach, the whole country seemed broken up into mountains and hills of all heights, with peaks of every form. While gazing with wonder and admiration on the scene, my attention was arrested by a solitary pine tree of great size, standing about a hundred yards from the gateway; no other trees of any size were near it. Its solitary position near the pass, and its great height and beautiful symmentry, made it appear more striking. What could it be? Was it new, or did we already possess it in England? I must confess that for a few seconds I had eyes for nothing else. Chairs, coolies and mountains were all forgotton, and I believe had the guard of celestials attempted to prevent me from going into Fokien, the only boon I should have asked at their hands would have been to be allowed to go and inspect this noble pine. The Chinese guard, however, had not the slightest intention of interfering with my movements, and, as the tree was on the road side, I soon came up to it, and found it to be the Japan Cedar (*Cryptomeria Japonica*), a tree which I had already introduced into England, and which, even in a young state, had been greatly admired there. I had never before seen such a noble specimen, and although I would rather it had been something new, I felt proud of having been the means of introducing into Europe a tree of such size, symmetry, and beauty. It was at least one hundred and twenty feet high—it might be much more—as straight as a larch, and had its lower branches drooping to the ground. It had not been 'lopped,' like other Chinese trees, and was evidently preserved with great care. My Chinaman looked upon it with great admiration, and informed me it was the only specimen of the kind in this part of the country, and that it had been planted by some former Emperor when he crossed the mountains." The plants of this distributed by the Horticultural Society of London about seven years ago, are now bearing abundance of seed in Europe—indeed, many have done so for the past three or four years; we may, therefore, expect it will soon become plentiful, as it seeds in such a young state. There is a variety named *Lobbiænum*, which, in a young state, shows little dissimilarity from the species. Native of the Northern Province of China and Japan.

* Continued from May number.

CRYPTOMERIA JAPONICA NANA—*Dwarf Japan Cedar.*—This appears to be nothing more than a variety of the above. It grows no higher than a bush, and is reported as very pretty.

ABIES BRUNONIANA.—This very beautiful tree is closely allied to *A. Canadensis*, but may readily be distinguished by its much larger foliage. It grows about seventy to eighty feet high, with spreading, pendulous branches. Those who know and admire our common Hemlock (and who does not?) will be delighted with this exquisite tree. It may be asked, Is this tree hardy? In England, to my own knowledge, it suffers from cold; but this, I think, is more owing to the want of ripeness of the wood in the fall than to the degree of cold; here, with us, the wood will be more thoroughly matured, and it will stand more cold; and should it require a slight protection while young, what lover of trees will refuse it? Major E. MADDEN* says of it: "Dr. HOOKER has recently found it in Sikhim, forming a narrow belt of 1,000 feet, confined to very narrow gorges between 9,000 and 10,000 feet, on the immediate (south) flanks of Kunchinjinga, probably the loftiest peak in the world, being about 28,000 feet. In the innermost valleys the limits are 8,500 and 10,500. The Gorkhalee name is "*Thingia*," or "*Tingoorisulla*;" the Bhotiya, "*Semadoong*." Dr. HOOKER considers it to be by far the most beautiful of Sikhim pines, whether as an individual tree, in groups, or in forest masses. One specimen was twenty-seven feet in girth at the height of five feet." It is also indigenous to other parts of the Himalayas, and found on pretty high elevations.

ABIES PINDROW; *syn.* PICEA PINDROW.—This I may safely call one of the finest Silver Firs in the world. Our own north-west coast, with California, produce some noble trees—as *A. grandis*, *nobilis*, *amabilis*, *Douglasii*, &c.—trees which may well associate with this, but who shall decide as the most beautiful? Dr. HOFFMEISTER records instances of *Pindrow* which he met on several of the lofty passes between Toongnath and Gungotree, which he estimated from thirty to forty feet in circumference, and about two hundred feet in height. In a young state this tree has been confused with *Webbiana*, but botanists who have studied them in their native habitat, describe them as quite distinct. Major E. MADDEN writes:* "Dr. GRIFFITH describes *Abies densa*, abundant on all the northern mountains of Bhotan, in terms which lead us to conclude this, and especially *Webbiana*, to be the species intended. He calls it 'the Black Pine;' alludes to its 'columnar' form, and says it is 'the marked indicator of great elevations,' fixing its lower limit at 8,800 feet; the upper at 12,478, and even 13,000. He notes 'many pines dead as if blasted'—'as usual, many blasted from lightning;' characters and limits well suited to include both; the *Pindrow* generally commencing at about 8,000 feet, and *Webbina*, exclusively, attaining 12,000 or 13,000, It is possible, however, that the *Pindrow* may be absent from Bhotan; Dr. THOMPSON does not recognize them as really distinct species. There can, however, be no doubt that in habitat, and in several marked peculiarities, there are constant differences; and between what we term a species and a variety thus characterized, the distinction seems sufficiently wide to entitle the latter to be so

*Journal of the Agricultural and Horticultural Society of India. Vol. VII., part I.

classed also. *Pindrow* forms dense forests on all the great spurs of the Kumaoon Alps, toward the heads of the Pindur, Turjoo, Ramgunga, and Kalee rivers, where (as in Gurhuual) the Khusiya name is *Ragha;* the Bhotiyas, of Byans, call it *Woomun.* In Central Kumaoon it is confined, as far as I have observed, to the great mass of Bhutkot and Boora Pinnath, from about 7,000 to 9,000 feet, where it clothes the sources of the Kosilla in a forest of unusual gloom and thickness." Coming from such great elevations there can be no doubt but this majestic tree will be perfectly hardy in the Middle if not our most Northern States. In foliage it is much larger than the common Silver Fir, and of a deeper green. The shoots and whole plant is robust, large and vigorous.

ABIES WEBBIANA; *syn.* PICEA WEBBIANA.—This near allay of *Pindrow* has been much confused with it. To an ordinary observer there does not appear much difference; yet the line of distinction is well defined. Dr. GRIFFITH informs us: "This species is rare below 9,500 feet; constitutes vast woods at 12,000 feet below the belt of Rhododendrons in Bhotan, as on the Rodoola Pass. It has a tabular form, and very sombre appearance, and can be recognized even at great distances by its black columnar Palm-like appearance." Dr. HOFFMEISTER found it shooting up to one hundred and fifty feet, and twenty-four feet in girth, along the great spurs south-east of Reithal on the Bhagiruthee Ganges. Major E. MADDEN writes: "On the northern side of the Shatooe Pass it forms most dense and extensive forest below the birch, at Atting Wodar, and is even still more magnificent lower down, between the Ootulmai Ghatee and Panwee village." "Notwithstanding the whiteness of the under face of its leaves, the general effect of the Himalayan Silver Fir is exceedingly dark and gloomy—more intense, indeed, than that of the Cypress, which, from any distance, it a good deal resembles. The form has pretty nearly the tall columar outline of the *Pindrow*, with boughs somewhat less bushy and pendulous; on the whole, the long-leaved, thorough-going black *Pindrow* must be pronounced the handsomer tree." Of the hardiness of this, like the preceding (*Pindrow*), there can be little doubt. Coming to us from such great elevations, judging from long experience of these trees grown contiguous to many Californian and western coast species, I should pronounce them much hardier than the latter. The winters of California are mild and humid—hence the delicacy of many species from there; but the species which come from high altitudes, as well as from the extreme north-west coast, must in the Middle States be perfectly at home.

ABIES PICHTA; *syn.* PICEA PICHTA.—This very pretty species is rather extensively grown in England, where are to be found many handsome specimens, though none of a very large size. It is very distinct and peculiar in its habit, and cannot well be confounded with any other. In the Middle and Northern States it is perfectly hardy. A lofty tree. Native of the mountains of Siberia and the Altay.

ABIES ORIENTALIS.—If it is fair to judge from small specimens, I should say of this: It has as dark foliage as our dark spruce, as long as the Norway, and forms as lofty a tree, and as beautiful in every point as the latter. A question may be raised whether this tree is or is not hardy in the Middle States. Judging from whence it comes, a

little caution may be necessary when planted out, in the way of protecting it, &c. At present this species is by no means plentiful, and consequently commands a high price. Native of Asia Minor and eastward.

ABIES JEZOENSIS.—This magnificent coniferous tree is one of Mr. FORTUNE's introductions. Dr. LINDLEY* writes of it: "According to SIEBOLD, the Jezo Spruce, so called because it grows on the Islands of Jezo and Krafto, in the Empire of Japan, whence it has been introduced into the gardens of the wealthy inhabitants of Jeddo. He describes it as a large tree, with a soft, light wood, employed by the Japanese for arrows and in the construction of domestic utensils. The leaves are said to remain seven years upon the branches." In England it proves perfectly hardy, and most probably will in this country. At present it is scarce, and the plants of small size in cultivation.

ABIES KHUTROW; *syn.* SMITHIANA—*The Weeping Spruce.*—This extremely graceful and elegant tree comes from the Western Himalayas, at heights ranging from 6,500 to 10,000 feet. It will in all likelihood prove hardy, though not as much as *Webbiana*. It generally occurs on the mountains next below the latter species. It is very variable as to height, and is noted by different travelers as ranging from fifty to one hundred and fifty feet. Compared with the Norway species, the branches are more gracefully pendant, the foliage longer and of a deeper hue, the cones longer, and hanging pleasingly from the branches. Major E. MADDEN says: "The principal end and design of the Himalayan Spruce, like that of the lilies, which neither toil or spin, is to be sought in its extreme beauty." Specimens in Britain, some thirty feet in height, have already shown the native Himalayan beauty of this lovely spruce.

(*To be continued.*)

## SEEDLINGS vs. GRAFTS, OR TOP-GRAFTS vs. ROOT-GRAFTS.

BY F. K. PHŒNIX, DELAVAN, WIS.

SEEDLINGS, it is not necessary to define. Grafted, or budded varieties, are those selected from the former on account of the superiority of the fruit, and other good qualities, as hardihood and productiveness, and propagated mostly by budding or grafting, generally upon seedling stocks, or, until within twenty-five years, when an improvement or innovation called root-grafting has been widely introduced.

With respect to the general system of grafting or budding, it were folly to question its safety and utility when properly used, though unquestionably an impost to be resorted to when necessary and avoided when practicable. The point is simply to what extent shall this practice be carried? And in view of the vast importance of horticulture — in view of its increasing risks and responsibilities — everything pertaining to that prime operation should be carefully investigated.

Grafting, or budding, considered as an abstract mechanical operation, performed under favorable circumstances—as, for instance, to graft or bud a young tree with its own

* Paxton's Flower Garden.—Vol. I, p. 42.

wood—cannot be regarded as inherently objectionable or dangerous, or as exerting any possible influence, other than for the time being to lessen its size or retard its growth. It is only in its perversions or accidents, its newly created world of changes and circumstances, that it can work injury. In the endless variety of combinations produced there must be an increase of risk—ample occasion for all the ills complained of as belonging especially to buds or grafts. Thus we have—

1. The subjects, endlessly diverse in habits and preferences as to soil, climate, culture, &c.

2. The operation, including time, manner, and results.

If these be taken into the account, we shall wonder not so much at the degeneracy as the endurance of our cultivated varieties. It is indeed maintained by some that what we have gained in one direction we have lost in another—that our choicest fruits, not only pomological but intellectual, have been dearly bought at a sacrifice of physical vigor—as saith the old proverb, "wiser and weaker;" a position not without considerable show of reason. But believing it opposed to the prevailing fact, as well as the hopeful theory, of "progress"—a progress not seeming and partial, but real, and, to some extent, proportionate—we must reject it while allowing, and otherwise explaining, the facts from which it springs. To say that culture and improvement pertain not to the entire range of human effort—as well to the physical as the intellectual—as well to the tree as the fruit—or to both as well as either alone—is manifestly absurd. We believe there are, in all directions, vast unexplored fields of profitable research and glorious accomplishment—untold stores of rich, new, noble inventives and prizes. At the same time it is evident that our efforts at cultivation and improvement have been, in many instances, partial, and in others, entirely misguided, producing certain baneful tendencies and results which are too obvious to be disregarded. These, whatever may be our theory, let each be sure to oppose and to the extent of his ability.

In discussing this subject, we shall endeavor to prove—

1. That the seedling is, *physically*, the more perfect tree. *Theoretically*, because of its unity and entireness, simplicity and naturalness throughout, in both origin and development, roots, top, growth, and product. Nature, in any given process, is perfect. *Practically*, because the wood of seedlings is firmer, bark tougher, and wounds made on them heal more readily; they are generally more productive and hardy, and accommodate themselves best to different soils and climates. Therefore—

2. Though grafting is indispensable, yet that grafting, other things being equal, will be best which employs most of the seedling stock.

These positions we shall not discuss separately or in regular order; nor is it, perhaps, necessary, for we doubt if any one conversant with the subject would feel inclined to question them. In fact the general impression, with regard at least to the hardihood of seedlings, has seemed to be that they were quite too tough, most unnecessarily and inconveniently thorny and rugged!

The ultimate issue no doubt is between seeds and buds—the rough, hardy product of the one, and the smooth, tender, rapid growth of the other—which affords the best foundation, or vital centers, to work from.

The seed is certainly nature's primal, chosen method of reproduction—the perfect embryo of a new, perfect individual—nothing second hand, or second rate, or fictitious, or adventitious about it. It is not one of many parts of a tree given to *manufacture* the rest, but all parts reduced, embodied, pledged to reproduce the whole. In examining the seed more closely, we find one part designed for the radicle, which is *first* developed; afterwards another, designed for the stem; and that these parts are utterly distinct—*not interchangeable*—a most significant fact. Each part, then, must remain by itself, each for its own element, and get each dependent on the other. And here at this point of union, if any where, is the life of the tree—the very seat of vitality—that common center from which all other parts radiate, and which, therefore, if any part, is indispensable.

That buds possess a species of vitality and are capable of indefinite, and, in some cases, profitable, extension or multiplication, is undeniable. Still it must be, from the very nature of things, an inferior, dependent process. There is no real *re*-production—no internal renewal of life, or vigor, or individuality,—but merely a sort of polypus-like increase, with, as I must think, a decided tendency, (at least among the more important varieties of fruit,) in every successive generation, to lose a portion of its original reproductive energy, unless that tendency be counteracted by working on strong seedling stocks.

The crowning effort of nature is reproduction. But man has interfered and diverted her energies from the formation of the most and best seeds to the production of fine flowers or fruits, making every other consideration secondary. The consequence is that some of our choicest fruits and flowers have almost no seeds, and are themselves few and feeble. Observe the wonderful productiveness of—we had almost said whatever is not cultivated—but compare the products of the original types of our fruits and flowers with those of the choice cultivated varieties, though none but the most productive are selected for propagation. No one can for a moment doubt that this seed-bearing propensity which thus underlies our whole system of horticultural production, is decidedly the strongest in seedlings; and, therefore, as we value the products of our trees, we should not lightly thrust aside their main prop.

Habit is (almost) everything; and if our trees, generation after generation, are to be worked from highly forced, root-grafted nursery trees, which are often little better than rooted cuttings, or more properly leaf buds, far removed from seedlings or fruit buds, we must not wonder if a habit of growing instead of bearing, there acquired and thus ingrained, predominate ever after. Like produces like; seedlings produce seeds, at least with whatever of fruit may be wrapped around them; while leaf buds, thus stereotyped, incline to produce leaf buds alone. Deeply conscious as I am of our horticultural inferiority here at the West, this lesson I must think we have learned by experience; if our Eastern friends have not, I would suggest that it might possibly be because their ancestors were not so well skilled in commercial gardening, especially the great art of root-grafting! Justice, however, requires the acknowledgement, in this connection, of our faults, if such they should prove to be. That root-grafting has ever been, as we believe, more generally practiced at the West than the East, and that

we, (with everybody else a few years ago,) esteeming it highly, wrote so far as we know, one of the earliest articles upon it, descriptive and commendatory, ever published at the East. See *Horticulturist*, vol. 1, page 280.

But it is argued that "a tree is a tree"—that root-grafts are, if not the very best, at least "good enough"—that seedlings, as well as grafts, vary in hardihood or productiveness—and that the hardy or productive ones of either class are equally so, while the opposite, the one as well as the other, will go to the wall.

Suckers, too, we recollect, were once "just as good as any," and of some plants they still seem to be; and where from time immemorial they or cuttings have answered all purposes, we would not lightly call them in question. But for all that, discriminating cultivators cannot now be persuaded to trust many kinds of suckers, as they once did. Trees do unquestionably differ, on account of different modes of propagation; thus we have standards and dwarfs, seedlings and suckers, root-grafts and top-grafts, unlike in many and important particulars—not but that they may produce similar fruit, and, under similar and favorable circumstances, be much alike throughout—still there is a plain, practical distinction. So with the different parts of a tree, the roots and tops have utterly distinct functions; a root cannot become a branch, nor a branch a proper root. Thus a seedling varies from a sucker or cutting, especially in its root and collar, and unquestionably throughout. Hence the impropriety of thus confounding them, and of manufacturing entire trees, roots, stem, and branches, out of tops. Nature will doubtless do the best that can be done with them; but how *can* they make as natural trees as seedlings? The proper place to use tops is to make tops again—at least with the nobler fruits, so liable as they have become to untoward influences. Where so much is at stake,

> Let foolish art and busy man withdraw
> While Nature plants the corner stone.

Nor can the foundation be too rugged and enduring.

Trees differ in being of different varieties as well as classes. It is said there are sections where nearly all varieties are root-grafted, and with perfect success. In other sections, too, throughout the North and West, some varieties are generally recognized as too tender for root-grafting, and, in extreme cases, for any situation. For one, I do not know where these tender varieties do succeed so perfectly. In the very best apple districts in Western New York, we have seen (rarely, we admit, for we have never investigated particularly on this point, but we have seen) the same effects from root-grafting that are complained of elsewhere—in the nursery bursting, and in the orchard dying out at the collar,—while seedlings flourish almost everywhere; and every improved variety, without exception, in our experience, is rendered hardier and, if any thing more, productive, when worked standard high on hardy, productive seedlings. Is it not then the obvious dictate of sound policy to adhere inflexibly to the very best mode of propagation? Are we wise to take up with anything short? To strengthen a feeble grower, or renew stunted varieties, we have ever been wont to work them on the best seedling stocks; thus, by common consent, from time immemorial, acknowledging that with respect to vigor and hardihood the bottoms govern. Bottoms change

the tops greatly, and often for the better; while tops affect good bottoms, if at all, generally for the worse, except in the quality of the fruit.

I certainly would not deceive myself, nor raise any false alarm; but let us suppose, if not unreasonable, that throughout our country, when once well covered with these tender root-grafted trees, some right western winter should prevail. It may be (and it is certainly to be hoped) we shall have none more trying than that of '51 and '52.

Once more! Root-grafts cannot be better than top-grafts; still they are different, and what will that difference probably result in? It may not be possible, yet we have thought whether they may not eventually turn out like suckers, essentially inferior. *At all events on which side, we ask, is the risk?*

We would by no means ascribe perfection to seedlings; but we do insist that to them, as a class, we must look as much for endurance and productiveness, as to grafting, for choice fruit. No one can be more sensible than the writer of the advantages of root-grafting—especially to the nurserymen—of the cheapness, beauty, and popularity of that class of trees, and none will be more pleased to have it demonstrated that these advantages are not counterbalanced by any increase of risk. As a nurseryman, we have grown them mostly, and must do so while they are preferred. But there is, nevertheless, a class of stubborn facts we can explain in no other way than those above.

With our present views, between a seedling and a graft (of whatever style) of the same fruit, everything else being equal, we should prefer the former. But the truth of the whole matter, summed up, we believe to be this—that there are few seedlings but might be improved by grafting; and but few, if any, improved varieties but would be materially benefitted by working standard height on strong, healthy seedlings. There are some good fruits which produce the same, or nearly the same, from seed; and these it would be well to increase if only to save the trouble of grafting. If it be argued that they would not be as productive, it must be because natural progress toward the formation of perfect varieties is at an end, which we disbelieve.

We are no believer in the theory of the limited duration of varieties. Of the two we prefer Prof. TURNER'S theory, as set forth in his famous essay on "The Vitality and Longevity of Trees," for which we think the horticultural world largely indebted to the author, as also for many other good things. Under favorable circumstances, we believe a given variety may endure through all time; but hardly, or to but little purpose, if subjected to all manner of abuses. And so with individuals; if we could have them live out their natural lease, we must be as choice of the body as the mind—of the tree as the fruit. Therefore, as nurserymen, if we would be on the safe side, let us always retain the strongest possible hold upon that inexhaustible storehouse of "vitality," that chief reliance, that staff of life in propagation—a good, sound seedling stock. Nor should we discard grafting; although, like civilization, while it has vastly increased the numbers and merits of its subjects and possessors, it has at the same time unquestionably multiplied their diseases and risks—not from necessity, but neglect—not to vex, but to improve—that, as our strength is, so might be our exertions and improvements.

# EVERGREEN TREES.

BY WILLIAM BACON, RICHMOND, MASS.

"I DON'T like evergreens—they look so cold and gloomy in winter, and it is so mournful to hear the wind blow through them," is an expression, not so common as it once was, to be sure, but one yet quite too familiar to our ears. The facts in the case are, we are too apt to predicate opinions on first impressions, and if prejudice does not establish those opinions, too often in violation of reason and good taste, it is a fortunate circumstance.

Evergreen trees and shrubs do not attract particular attention in the season of deep and fresh verdure. The new-born foliage of spring spreads its fascinations over a large surface of forest and lawn, and with the variety of form and feature it presents, the eye and the mind find so wide a field of wonder and observation, that their researches stop, leaving such as have retained their foliage through the desolations of winter, unnoticed—almost unknown. To the careful observer, however—to him who seeks for beauty every where, and sees in every form to which Nature has lent her friendly touch in finishing—these evergreens present a beauty of foliage to which the deciduous trees of the forest can lay no claim. How richly their young and tender verdure contrast with that on the lithe twig which has stood and borne the vicissitudes of devastating winter! The Hemlock, long despised but coming to be justly admired for its symmetry of form, and light, feathery foliage, is a beautiful illustration of this variety of leaf, so closely joined as to give no interruption of foliage, and yet as distinctly marked as the termination of its branches. The Pines, the Fir, the Spruce, the Cedar, and, indeed, all our northern evergreens, possess the same peculiarities, though some of them, perhaps, in a less observable degree; yet what they may lack in this peculiarity of spring beauty, they make up in the richness of autumn; for when each leaf of the previous year has fulfilled its functions, and the new growth of leaves have attained their size and are fully prepared to enter on their life-preserving, life-giving labors, the old leaves turn to a pale yellow, and remain upon the branches a few days, until their last hold on the parent twig is broken, indicating the sallowness of death in contrast with the rich and healthful vigor of active life.

We have said, in a former article, that we admire all the trees of the forest. It would be very strange indeed, then, if we had not a peculiar fondness for those which present such marked difference of foliage in spring and autumn—and more especially if we did not greet their unchanging verdure with a smile of happy recognition, in the bare and desolating reign of winter.

Smile not, reader, if you find time and disposition to read these remarks. We see them, not to be gloomy appendages of earth, but rich and beautiful products, created to enliven and decorate the season of storms and tempests, and while reminding us of the blooming, verdant past, they give friendly assurance that Nature will again awake in freshness, and that her drapery of green will again embellish the earth with sights to feast the eye and make glad the heart.

It is but a few short years since any but the very few have thought of embellishing their grounds at all with evergreens; and, until recently, none but those from a distance have been permitted to take an adopted abode near the residence of man; we are pleased to see, however, in these latter days, a growing disposition to introduce them into pleasure grounds. If the same good taste would extend itself, and sprinkle them with other trees along our highways, the scenery would be improved by the increase of variety. One objection to this, however, must remain until men become sufficiently civilized to keep the streets clear of marauding quadrupeds. All animals have a stronger propensity to wage war on this class of trees than upon any other; consequently they are first to suffer from their warfare. Again, an evergreen tree cannot be perfect unless it grows in a conical form; Nature teaches this fact. Wherever they are found in open lands, or in their woodlands where their growth is unrestricted, their branches extend nearly or quite to the ground. Time does not deprive them of these lower branches. Nature probably demands them, to shelter their roots from the scorching suns of summer and the severe frosts of winter; beauty demands them, to give perfection to the exquisite models of Nature's workmanship. But plant them in our highways, with ever so much form of beauty, which would extend itself with each successive year, and how long would the tasteless, roving ruminants that infest our streets to the annoyance of all peaceable, progressive citizens, allow the destruction of this beauty to be incomplete?

But there are other purposes than those of mere beauty to which evergreens can, and eventually will, be applied. The utility of planting belts of them to protect exposed, bleak situations from the violence of winds, is a fact too firmly fixed to admit of a doubt. The only reason why many such belts are not planted each year, probably, is, that they will not afford the desired protection the coming winter — that a few years must pass after the work is done before the benefits can be fully realized; so, instead of setting about the work and shortening this time, we suffer delay to carry it further from us, until once, twice, three times the period is passed that would be necessary to realize the protection.

It was formerly supposed that more care was necessary in removing evergreens, than was usually bestowed on other trees of the forest. All trees should be removed and planted with the *utmost care*. As few roots should be broken, and as many of the spongioles retained as possible; and, acting upon this principle, we have no more reluctance in undertaking the removal of a Pine or a Fir than we have of an Elm or a Maple. The roots of some trees are more easily injured than are those of others, which, of course, makes greater caution necessary; but in removing Pines from low lands where the roots are easily retained, we have uniformly met with desirable success. In such lands, however, we have usually found them growing from bogs or the mossy covering of old logs, where the earth, by a little care, can at any time be retained around the roots, and the rootlets remain undisturbed throughout the whole operation; so that no delays in growth have been the consequense of removal. May is the month, which, in our experience, is most favorable for transplanting evergreens; and we have succeeded well in the operation until the new growth of three inches

had been made: at about the time of the bursting of the bud, however, we should consider the best time. In the matter of size, we would not be particular, further than in having an abundant supply of root for the trunk. This is more readily obtained to small than large trees, and, in most cases, ten years will give the tree planted when from three to five feet high a preference to the one planted when from ten to fifteen feet high.

In 1838 we found a beautiful tree, some fourteen feet high, blown over, so that the roots were in fine order for resetting. With an ample supply of help and great care we removed it. In 1840 we planted a tree six feet high about as many feet from it. A few days since we noticed the two trees growing so near together, in the same soil, and under equally favorable circumstances of location, and the low tree of 1840 overtops the high tree of 1838 by about six inches. The healthful appearance of the bark and foliage are superior in equal proportion.

## THE PROPER SITUATION OF TREES ON LAWNS FROM ONE TO THREE ACRES IN EXTENT.

BY R. H. BURNHAM, LONG MEADOW, MASS.

I WILL start with the thesis that a place in the country designed as a residence the year round, is not complete if it does not embrace among its collection of trees many evergreens; not that I would have them more numerous than the deciduous trees; on the contrary, they should be in the minority. To those residing on the place they are, during winter, a source of much pleasure—particularly if judiciously grouped on the north side of the entrance road, (where they afford a delightful change of temperature to one driving in on a north windy day from the exposed public road,) and in an irregular belt running around the northern and exposed sides of the grounds. Planted in this way, they afford protection to more tender trees and shrubs—such as, among evergreens, the Irish and English Yew, Deodar, and Lebanon Cedars, Chili Pine, Mahonia, American Rosebay, Treebox, &c., &c. The place is also more attractive to the casual observer. The trees most desirable for the irregular belt and the closely planted groups, are the Hemlock, Arbor Vitæ, and Red Cedar. There is sufficient contrast in their habit of growth and color of foliage to give variety and character to the belt; and, if it is desired to prevent their spreading beyond a certain limit, the two first bear the shears perfectly well, and by judicious shortening-in, they will retain their natural irregularity of outline.

Planted singly on the lawn, there is nothing can equal the Norway Spruce, when allowed to throw out its branches close to the ground. The Hemlock is almost its equal in this situation; the Black or Double Spruce is a handsome tree, and the Sweedish Juniper is a small, handsome tree of peculiar foliage; but the White or Single Spruce, and the Silver Fir, on account of their thinness of foliage as they grow old, should be discarded; the White Pine grows too large for any but large grounds.

Of evergreen shrubs, the Mahonia, with its Holly-like leaves, and its abundance of bright yellow blossoms, the American Rosebay, with its large fine pink flowers, and the common Laurel, [Kalmia, we suppose.—Ed.] whose beauty every one is acquainted with, are suitably placed by the side of the walks and on the outside of groups of trees.

I refer to the Hemlock again, not because it is the most useful for ornamental purposes, either single or grouped, but because it can be obtained, (not from woods, but from open ground where it has had the opportunity to develop itself,) of any size, which, to a person wishing to produce immediate effect, is worthy of consideration. I have moved the past six winters one hundred and ten Hemlocks, and an equal number of Spruces and Cedars of from twelve to twenty feet high, (by the frozen ball method,) and have lost but one, and that was owing to the excessive severity of the winter of 1852, at the time it was moved. This method (the frozen ball) of moving trees has often been described, but I differ from most by covering the ground where the trees are to planted *in the fall*, to keep out the frost, and digging the holes when the trees to be placed in them are on the spot, and I can judge of the necessary size and depth, instead of digging the hole (as is usually recommended) in the fall, and then filling it with straw, and covering the dirt thrown out.

Tired of the trouble of the above method, I tried in the spring of 1852 the common way, and as soon as the frost was out of the ground removed eighteen Hemlocks with the utmost care, covering the roots with wet mats the moment they were dug up—taking them from similar soil to that where they were to stand, and mulching after they were planted. The result was, that ten of the eighteen died, and last winter I replaced them with trees moved with dirt frozen to the roots.

Of the deciduous trees enumerated in my last communication, the Mountain Ash, when placed in the neighborhood of evergreens, and covered with berries in winter, produces a pleasing effect. As to the Catalpa, though late in putting out its foliage in spring, yet it compensates this defect by the size of its leaves and beauty of its flowers; a few can be used to advantage singly and on the outside of groups. The Judas tree is pleasing, from its red buds put out early in spring, before the leaves appear; and the Purple-leaved Beech deserves a conspicuous place on the lawn for the peculiarity of its foliage; and placed in the neighborhood of the Sweedish Juniper and Irish Yew, the effect is striking from the unusal foliage and appearance of each. The Double-flowering Cherry, with its charming flowers, should have a place near the flower garden; or if the fruit orchards join the trees of the lawn, this, with the Double-flowering Apple, Double Plum, Weeping Cherry, &c., may be used to advantage to form the connecting link between the useful and ornamental parts of the grounds. The Osage Orange forms a handsome tree with its deep green glossy leaves, and is worthy a place, although late in coming forward in the spring. The still smaller trees, the Hawthorns, Buckthorns, White Lilacs, &c., &c., form handsome trees of sufficient height to shade walks, look well when standing alone or grouped together, and as they (especially the Buckthorn and Privet) grow well in the shade. They are particularly useful in close grouping with and under larger trees.

The shrubs which I enumerated (page 212 of the May No.) can be grouped by the

sides of the walks—producing intricacy by shutting out the view in advance, and of other walks near by—grouped the same as trees on the lawn, they produce variety by breaking up the view into pleasing openings, and they can be used as undergrowth among the larger trees. For the last named purpose, I have found the Privet (allowed to grow as a shrub) and the Missouri Currant perfectly well adapted. If there is on the place a *few* full grown trees, they may be covered to advantage with the American Ivy, Honeysuckle, and some of the Prairie Roses.

Instead of placing all the ornamental trees in front of the house, as is too often the case, some of the larger groups (particularly evergreens) should be placed at the back and sides, to give a background to the picture, and a pleasing effect to the house.

## A FEW HINTS ON FARMERS' HOUSES.

BY WILLIAM H. SCOTT, ADRIAN, MICH.

It is a little strange that in this State not one farmer's yard in five hundred has more than half a dozen ornamental trees in it; and in the greater number there are no trees at all. The farmer who *ventures* upon the outlay of a few dollars in the purchase of well selected ornamental trees, and evergreens especially, is quite sure to find that at least every third passer points at them as something a little select—something, though very pretty, not exactly appropriate in the demesne of the man who gets his living by growing wheat or wool, or by making butter. Why not? Only because the thing has'nt its precedents among Michigan farmers. Even Johnny Slattern and Bill Carenought, untenanted as their minds are with any thing of a Georgic nature, wish that some of those pretty trees at whose beauties they give a passing look in their way through Town street or Suburban road on their way to market, were their own. But these men want the example of their own class. There are their neighbors Broadbrim and Loanmoney whose *farms* are the pink of neatness—their fields without a thistle or other noxious weed; their fences of the best; their wheat well drilled; their orchards trim and productive; their houses commodious enough; and, maybe, each keeps his carriage. *They* are the men to whom the neighboring farmers look for examples. Farmer Broadbrim thought, when he "laid out" his "dooryard," that he had got it about right. Before he built, and when he lived in the log house, the "front fence" was a rail fence, and the "dooryard" was the whole farm that the house and barn did'nt cover. So, when the new house came to be built, in order to a greater certainty of metes and bounds—"a clear manifestation of visible things," Consistence Broadbrim runs a bee-line from each front corner of his new-built house, whereupon shall stand, as well upon the street, a picket fence. His well kept farm has thus far engaged his whole attention, for from its proceeds he has had a large family to maintain; but now, as the farm is in good culture, and the children married and out of charge, he thinks he will decorate a little: hence that front yard within that picket fence. Consistence says that good Rebecca, the wife,

shall plant it. Thereupon she sets her wits to work for the most feasible and economical way of doing it. A neighbor's Blush Rose need the trimming, and she gets the offshoots. She remembers that her cousin PATIENCE GROWNRUSTY'S yard, in town, has an old lilac bush whose uncared-for roots had thrown up a multitude of suckers: so, the first time she goes to town, some of them are got. With these and the "posy" bed on either side of the walk from door to front gate, the sum of her decorative art is well nigh exhausted. CONSISTENCE is an indulgent man, and looks quietly on all this transforming process in a way which reads unmistakably — "what's the use?"—"extravagant!" She has a want or two unsatisfied yet. Passing their friend BENJAMIN'S well kept nursery on a fine spring morning, she would fain thin it a little for the good of her yard; but her good CONSISTENCE has been quite a long time making his money, and has no mind to spend much of it for "show." She is easily persuaded; though an *Elton* or a *Bartlett*, costing little more than one of the hundred apple trees in her husband's orchard, would have combined beauty and utility. The pretty Norways, Pines, and Spruces, that stand out so vividly in the nursery rows, and which, transplanted to their own door yard—small as it is—might add greatly to its beauty, as well as keep off the hard winter winds, fail to entice them. The little yard, with its rose and lilac bushes, and its two flower beds, has not the elements for growing better. Is was "made" long ago.

Now, CONSISTENCE is but a type of a large class of farmers whose "strivings" to be tasteful are as uncertain as the flesh. What I especially wish to call attention to in his case is this: that possessing, as he does, quite his share of acres, he should so grudgingly "set off" (as though it were a dangerous associate of the rest of the farm) only that stingy little enclosure he designates "front yard." The few square rods of ground favored (?) by this exclusiveness, give a stiffness and prude air to the farm. The fence enclosing it draws attention to what should always be the best ornamented part of a farmer's grounds — the part which *all* members of the family, as well as passers, must look at the oftenest. The mistake made by CONSISTENCE involves a point in decoration in which nine in ten stumble in making their improvements: that *all fences not really required for purposes of division, should be studiously avoided either on village lot or farm.* A fence should be as much out of the vision as possible. With the greater number a "handsome fence" is of higher moment than the shrubs and trees surrounding the house, and too often answering the place of them. What more provoking than when passing a good collection of shrubbery in town yard to have your view of it cut off by a fence nearly twice as tall as there is any necessity of—a boardy barrier that the owner thrusts upon you as the greater beauty, but which you consider sheer snobbery. In villages there must be fences between the grounds of adjoining proprietors, if not neighbors in the true sense; but far prettier a neat fence of Osage Orange, Privet or Arbor Vitæ to mark the line. On the front, so long as the laws are not enforced against marauding cattle, carpentry must generally be used; but it should always be as low, light and open, as strength will permit. Much display in ornamental fencing is quite inadmissable about a farm house; more than in the town we expect trees, shrubs, and green vines, and grass to look at, and don't

so much need the plane and saw to make beauty. The greatest breach of good taste in a house yard on the farm, is stinginess of size—adopting as a *choice* in the country what is only a *necessity* in the city. Half an acre, or even an acre, no farmer should grudge for his yard; especially as no part of the farm can be made to pay better. The writer has found that two acres that he has mostly planted with forest and evergreen trees, made a better return of grass than twice the number of acres of meadow elsewhere. As breadth and magnitude, rather than elaborate decoration, belong to the farm, a horizontal fence is most appropriate to the yard. Picket fences, so common in front of farm houses, should never occupy that position. A horizontal ten foot rail, made of some hard wood free from knots, to connect the posts, makes a cheap, strong fence, obstructs the vision as little as any, and looks well.

A few words as to the selection of trees. I assume before making any list of ornamental trees for the decoration of the grounds of a well-to-do farmer, that he is not restricted in room. There is no necessity for crowding his trees too closely, as nine-tenths of lot owners in villages are sure to do; but, selecting his trees judiciously, he may give each its proportionate and necessary area, so that its distinguishing beauties shall be best brought out. Let the farmer devote two acres—at least one—to trees and lawn. On two acres he may get all our native forest trees, a complete collection of hardy evergreens, and besides, a good variety of the best pears and cherries. The pear and the cherry are the only fruit trees fit for the yard. From them, varieties may be selected combining the greatest excellence of fruit and all the beauties of form and thrift. The peach and the apple do not sufficiently combine beauty and utility to admit their presence nearer than the orchard.

It need not be objected that the portion of the ground devoted to forest trees is to yield its sole profit in the grass which may grow beneath them. Why not have your hickory nuts grown at home, instead of spending time and legs in roaming the woods or your neighbor's fields for them? And there is as much difference between such nuts as you might have by a proper choice, and the average of wood-grown nuts, as would amply compensate for the pains. How few trees equaling the Chestnut as a lawn tree, and how good the nuts! I saw young Chestnut trees last summer in the nursery of a friend, whose crop of fruit quite astonished me. The seed from which they sprung was planted at the same time with nursery apple trees growing near them. The latter had not commenced bearing. The Black Walnut, too, grows rapidly in the proper soil, and produces one of the best of nuts.

From the large variety of evergreens to be found in the nurseries, fifteen kinds will embrace all the *well-tried*—all that are certain to withstand the irregularity of northern winters without protection. Foremost among them, all things considered, may be placed the Norway Spruce, Hemlock, and Black Spruce. They are all beautiful specimens of tree architecture, and complete types of the two kinds of character in evergreens. Quite too little has been said in praise of the Black Spruce, owing partly to the fact that it has been little cultivated as yet. Its growth and size are about equal to the Norway Spruce; but it has a much denser foliage, and, with the Norway, the same association of color is attained as verdigris and French green afford.

Its depth of coloring sometimes gives it rather a sombre expression. To me that very dark green is especially pleasing in the melting days of summer. In the yard of Dr. D. B. Scott there are specimens, the tallest of which is, perhaps, thirty feet high, with a close, unbroken foliage. They have been universally admired by tree connoisseurs. Some specimens transplanted into my father's grounds in Toledo eight years ago—trees twenty years old from the seed—are almost always the most admired in a collection of ten or twelve evergreens. Beside them the much overrated Balsam Fir shows thin and lank. The Black Spruce has been sadly prejudged by those who have gone the wrong way to work to get it. Like the Hemlock, you greatly mistake its domesticated character by judging it from its appearance in the close forest, or by specimens taken from the forest. Like most evergreens, too, it must be a thin, slow growing tree for many years if transplanted from its native wilds; while, if taken from thrifty nursery collections, it is sufficiently thrifty, and grows thick and compact. Then there is the Red Cedar, a tree that no good collection should be without. It is often scrawny in its wild, native retreats; but it is not often so with good care in open culture.

## GRAPES AND GRAPERIES.

BY C., MONTREAL, C. E.

In looking over the December number of the *Horticulturist* (a work which I often re-peruse with increased interest), I notice the queries of "C., Chicago," regarding the failure of his grape vines. Having had some experience in growing grapes, I beg leave to inform the gentleman that his communication bears on the face of it the cause of his failure, namely, the deficient state of the vine border. It is certainly the first time I have heard of a border for grapes being constructed of "light, sandy peat," especially in a country like this, where the temperature ranges so high in summer, accompanied often with long periods of drouth. Whoever was wise enough to recommend such a process deserves a "diploma and a gold medal." It is a soil I would use for Rhododendrons or other "American" shrubs, but never for vines. I would advise "C." to remove entirely his present vine border, and substitute good loam of a heavy nature, rotted turf, and well rotted stable manure. Indeed, he cannot do better than follow the able editorial advice in answer to a correspondent contained on page 576 of the December number. It is there said that "stable manure should form the *chief fertilizing ingredient* in every vine border"—an opinion with which I perfectly concur. With regard to the drainage, another important item, I have used, with perhaps equal success, oyster shells, lime rubbish, or any similar substance containing nourishment, and at the same time answering for drainage. I would by all means advise "C." not to depend on the watering which his predecessor may have given the vines. I have had no experience in the shading of vines with canvass or any other material, as I never saw the necessity of using it in any country. I believe we have it here as hot in summer as at Chicago—the thermometer frequently ranging

as high as 100° and 105° in the shade, yet by means of ventilation I have always been able to keep the houses lower in temperature than the external atmosphere. I approve of C.'s system of pruning—the *spur* system is the best way of getting heavy crops. So accustomed am I to consider a thermometer a necessary appendage to every glass-house, that I am constrained to ask "C." if that useful little instrument is not to be had in Chicago?

I have been a reader of your delightful journal from the first, and although this is my first communication, I crave your permission to add a few more words. I have read with great interest the excellent practical remarks of Mr. MESSER, of Geneva, in the March number regarding the "*White Muscat of Alexandria*"; although I never saw glass sashes used for an outside border, the advantage of Mr. MESSER's plan will be at once obvious to every practical hand. I have often used hot manure for the same purpose, which I have also, at the same time, made subservient to the raising of cucumbers, melons, &c., by the aid of sashes. My opinion is, that the *White Muscat* is the *best flavored grape* I have ever tasted: DOWNING truly observes—"the most delicious of all grapes." I prefer it to the *Black Hamburg* for *flavor* when perfectly ripe, and Mr. M. seems to have had it in this condition, as his fruit had attained a yellowish color. It is a sort, however, which I would hardly recommend for a cold vinery, as it ripens late; much, however, would depend on the management of the border, which Mr. MESSER seems to have managed skillfully, when he has brought this delicious sort to such perfection without the aid of artificial heat. I may add, that some years since I saw the *White Muscat* and *Black Hamburg* tested by eminent judges at a Horticultural dinner, when the palm for flavor was awarded to the first mentioned; as to that world renowned sort, the *Black Hamburg*, there cannot be a doubt that it is the most profitable of all grapes, whether for a cold or heated vinery. Mr. DOWNING's description of the *White Muscat* is very correct, except with regard to its *thick* skin, in which particular I rather agree with Mr. MESSER in calling it a *thin* skinned grape. The *White Muscat* is always grown in England in forcing houses—the roots planted inside, but having free communication with the outside border. To prevent the roots extending too far, a stone wall is sometime built at a certain distance from the front wall of the house. It has often occurred to me that vine culture would be greatly simplified by forcibly confining the roots all inside the house, more especially when they are forced, so as to have root and top as near as possible at the same temperature.

There are a few other sorts of grapes which I would venture to recommend to American cultivators—such as as the *Grizzly Frontignan*, and the *White Frontignan*. The *White Nice* is a pretty good grape, and yields large bunches. I lately saw the *Black Tripoli*, a superior sort, one of the bunches fully four pounds weight; but I believe it is rather a difficult kind to manage. I notice that Mr. DOWNING recommends, in his "*Fruits and Fruit Trees*," the *Black Saint Peter* as an excellent sort for a cold house. I think he must have been in error with regard to this variety, as, so far as my experience goes, confirmed by that of many other cultivators, I have found it to be a very difficult kind to bring to perfection without the aid of a high

temperature; at all events, I am sure it is not a sort fit to be grown in collection, and, indeed, there are several sorts which, to grow to complete perfection, would require each a house for itself. There are many other sorts of grapes which I have grown, but cannot do better than refer the amateur to the various excellent works which have been issued on the fruits of this country, where every necessary detail is given.

## THE PEACH TREE IN 1852.

BY C. E. GOODRICH, UTICA, N. Y.

The destruction of the peach tree this year was unusual in degree, and occasioned by an unusual cause. The hard frosts of December 27th previously had, apparently, destroyed the most of the fruit buds. The winter, though unusually cold, was favorable to the health of fruit by its great uniformity. Apple trees and healthful plums passed through it safely, while plum trees that had been injured during the summers of 1850–51 by the mildew of the leaf, (in consequence, I think, of hot, damp weather,) were killed.

On the 14th of April I passed through all my peach trees, and removed such trees as I have found uniformly yielded late and poor fruit. On that occasion I was pleasantly surprized at the healthful state of the wood and the proportion of fruit buds yet alive, especially those situated about the base of the limbs. Certainly, there had been no winter of the eight during which I had cultivated the peach, more congenial to its health. April 26th the temperature rose to 68°, there having been but two or three days as high as 54° previously. At this date I deemed my peach trees in a fairly hopeful condition, with the exception of the large loss of fruit already noticed.

April 27th to 30th, inclusive, were four bright days, with a brisk wind, which was cool except during the last of them. These four days were undoubtedly the turning point in the health of the peach. At the conclusion of them, much of the young wood was shrivelled and drying up, even to the eye, and much more to the test of the knife. The change was so sudden and extreme as to leave no room to doubt, even on the most cursory observation. The sun and wind combined seemed to have annihilated the sap of the young wood — the weather previously having been too cool to excite the roots to action.

Gooseberries were now slowly coming into leaf; pie-plant was partially expanding; peach, but especially cherry buds, were here and there swelling. May 1st there was rain copious enough to make the Mohawk overflow its banks. May 3d to 6th were four frosty nights. From the 6th to the 9th, inclusive, were four hot days—the temperature on the 7th reaching 82°, and on the 8th it was probably as high, though the indication was not reached. The peach broke into flower slowly and irregularly from the 15th to the 22d, when it was about in full flower. This was just ten days later than usual, it ordinarily being in full flower on the 12th. While these were coming into flower they encounted three Novembery days from the 18th to the 20th, which

resulted in frost on the morning of the 21st. By this time it was evident that of some five hundred trees that had exhibited apparently fair health less than one month before, full one-half were substantially ruined — some being dead (as the result soon after showed), root and branch, others killed to the ground merely, and others still having here and there a live limb. The remaining half were injured less in various degrees. Soon after flowering there was a considerable development of the "curled leaf" malady, though I think it was less than in 1851. This attack was to have been expected, if the principles laid down in an article in your paper for February, 1851, were correct, the general character of the weather in the two cases having been very similar. It deserves to be noticed that trees that stood in the grass, and so had made less succulent wood the preceding year, were less injured. I have read in your paper general statements of the extensive death of the peach during the last severe winter. It would be gratifying to know whether this destruction was occasioned by an influence acting strictly during the winter, or whether, as in my own experience, it was, more properly, the influence of an irregular spring. I closed my articles one year ago, when writing on the "curled leaf," in a tone of considerable confidence in the possibility of cultivating the peach somewhat successfully, even in Oneida county; but the experience of 1852 is, I acknowledge, not a little discouraging. Others about me, with a few trees, on a heavier and less excitable soil, have suffered less than myself. A tree of mine, also, that is budded on a plum root, has been vigorous. But it is sufficiently obvious that, in a climate with such liabilities, the cultivation of the peach must ever be precarious.

# Foreign Notices.

BOTANICAL AFFINITY OF THE CEDAR OF LEBANON AND THE DEODAR.—The following article will be read with interest by the many admirers of the famous Deodar Cedar. It has frequently struck us as an important quality of this tree to "sport" when raised from seed. The *robusta* and *viridis* are two quite distinct varieties—the first distinguished by its vigorous habit, and the other by its deep green color. There is likely to be an endless variety among seedlings, which may be, in some respects, regretted, while in others it will add to its interest.

"When the Deodar was first raised from seed in this country, the graceful weeping habit of its branches, their glaucous hue and long tender shoots presented an aspect so different from the ordinary appearance of seedling Cedars, that no one, we believe, who observed the two trees growing together, doubted their distinctness. Systematic botanists have, however, all along, found a difficulty in pointing out tangible characters to distinguish them; and travelers who had seen the trees in their native places of growth have, from time to time, reported that they are both liable to a very great amount of variation, and that both vary in the same way. If to this we add that among the myriads of Deodars which are now yearly raised in this country, many varieties are already beginning to appear, some of which are much nearer the Cedar than the original state, it will not appear surprising that an opinion should have arisen among botanists, which begins to gain ground even among cultivators, that the two trees are not specifically distinct.

"It is in all cases a matter of considerable difficulty to decide whether or not two closely allied forms are identical or distinct. Accurate observation of the plants in their native places of growth, during all stages of their existence, is the only unerring guide in such a case, and where that is impossible a careful examination and comparison of extensive suites of specimens in all states can alone enable a botanist to decide on the identity or distinctness of two such forms. The difficulty of solving such a question, always great, is considerably enhanced when large trees form the subject of comparison, and is, perhaps, greatest of all with cultivated trees which, being placed in circumstances different from those in which they naturally grow, have a tendency to assume appearances different from those which are characteristic of the species. The question, indeed, is one in which the cultivator is as much or more concerned than the mere botanist, and it is one which the observant and philosophic cultivator is peculiarly qualified to answer, as from his acquaintance with the extent to which plants raised from seed are liable to vary, he is better than any other person able to decide what amount of variation may exist without specific difference.

"That the Cedar and Deodar are very closely allied to one another no one doubts. Both belong to the same section of the Pine tribe, characterised by solitary persistent leaves and erect cones. The male flowers in both are absolutely the same, and small branchlets of the two are in the herbarium almost undistinguishable—the mode of branching, insertion of the leaves, and color of bark being quite the same. The cones in both vary a good deal in shape, but the scales and broad-winged seeds are the same in both species. A difference in the shape of the scales, indicated by ENDLICHER, seems to have no real existence, or rather to depend on the age of the cone; for before maturity the scales are closely pressed together and bent upwards, but as the seed ripens they spread out and become straight or even reflexed before they fall away from the persistent axis.

"The only points of distinction, then, which can be discovered between the Deodar and the

Cedar of Lebanon, are the generally greater length of the leaves of the latter, and a considerable difference of habit. This difference of general aspect will, we believe, be found to be the ground on which most observers rest their belief of the distinctness of the two trees. But though variations in this respect may be admitted as a *prima facie* indication that specific differences exist, yet they are in themselves no proof of such difference; and if a minute comparison of two supposed species fails to show any peculiarities of structure, mere size of parts and mode of growth cannot of themselves make two plants distinct. We all know how variable our forest trees are in these points; coniferous trees, indeed, to a greater extent than most others; and it would be within every one's experience that the Deodar is one of the most variable of a variable tribe. This may be well seen in any extensive plantation of Deodars, and any one may satisfy himself that it is the case by a visit to the fine avenue of these trees in Kew Gardens, in which may be seen many trees which are quite intermediate between the original state of the Deodar and the common Cedar, and one or two, which both in mode of growth and in rigidity and size of leaves, are almost identical with the Cedar of Lebanon. As permanency is the only test that can be applied to estimate the value of distinguishing characters, the occurrence of these intermediates forms the strongest argument against the distinctness of the two species; and if future observations should show a still further approximation of characters, what is now only probable will become a matter of certainty. It is, however, a very curious fact that the Cedar is in this country much less liable to vary than the Deodar; and it has been suggested to us by a practical gardener of great experience, that the explanation of this may be found in the fact that all our Cedars descend from one common stock, or, at least, are derived from the same district in Lebanon, while the seeds of the Deodar are collected from widely distant parts of the great Himalayan chain.

"Indian travelers unanimously testify that the Deodar is one of the most variable trees in its native country. Though probably confined entirely to the western and drier Himalaya, and not being known to occur in a wild state in any part of the chain east of the Ganges, it has a wide range in altitude, growing equally in warm and sheltered valleys as low as 5,000 feet, and on exposed slopes at a height of 12,000 feet, where, notwithstanding the elevation, the warm dry summer enables it to ripen its wood sufficiently to resist the intense cold of winter. In its native forests, we are assured that the Deodar is a tall conical tree, rising to a height of 100 to 150 feet, and sending out horizontal branches in all directions; or at times dividing close to the base into two or three trunks, which ascend parallel to one another to a great height. It is, however, also common in a state of cultivation, being generally planted near temples in the province of Kumaon, in which it is nowhere indigenous. There, probably, from its isolated mode of growth, as the same thing is observed wherever trees grow in exposed situations, it has a quite different shape. Low and flat-topped it rises to no great height, but sends out long straight branches, which bend downwards and often sweep the ground. The Cedar of Lebanon is also well known to us from the accounts of travelers, who have observed it in its native forests, and from their descriptions we learn that it is there often a very different tree from that familiar to us in this country, being tall and straight, with horizontal branches, forming a beautiful cone.

"The peculiar glaucous hue so characteristic of the earliest imported Deodars is not only not constant in the species, being absent in many of the varieties which have already arisen in this country, und unquestionably not present in adult trees in a wild state, but it occurs in some states of the Cedar. It cannot, therefore, though it forms the most striking distinguishing mark by which the Deodar is ordinarily recognised, be regarded as anything more than a very striking instance of the amount of variation to which species are subject, unless we assume what no one, we think, would be inclined to do, that the true Cedar, as well as the Deodar, is a native of the mountains of northern India.

"We have purposely abstained from taking into consideration the geographical distribution of the two trees, as any argument founded on it would be inconclusive. It may, however, be noticed as corroborative of the view which we have been led to adopt, that the Deodar in India is exclusively confined to the western part of the Himalayan chain, and is especially abundant in the mountains of Kashmir, and that it extends thence into the mountains of Affghanistan. The hilly districts of eastern Persia are not, it would appear, sufficiently elevated for coniferous vegetation, nor is there at present any reason to suppose that any species of Cedar exists in

northern Persia, where there are very lofty mountain chains. Still our knowledge of that country and of Armenia and Caucasus, is too limited to warrant our asserting that the Cedar does not grow there, while in Taurus we know that the Cedar of Lebanon is indigenous.

"It ought also to be borne in mind that among the trees which accompany the Deodar in northern India, there is a considerable number of European species. The Yew is plentiful in all parts of the Himalaya, and the common Juniper, though more Alpine, has nearly as wide a range. The tree Juniper of India, too (*J. excelsa*), extends into western Asia, so that at least three species of Conifers are common to that and the Himalaya. The Walnut, which is one of the commonest forest trees all along the chain of northern India, is also indigenous in the Caucasian provinces, and a species of Oak extends from Spain, through western Asia, Persia, and Affghanistan, into the drier parts of the western Himalaya. The common Berberry may be cited as another instance of the extension of European species far East, and the list of trees and shrubs might, if space permitted, be considerably increased, while the number of herbaceous plants which are common to Europe and the mountains of India is very great."—*T. T. in Gardeners' Chronicle.*

[This very able statement of the botanical arguments that may be employed to show the identity of the Deodar and Cedar of Lebanon *as species*, has been communicated to us by an experienced Indian friend, well acquainted with the former tree on its native mountains. The arguments that a botanist can produce in support of the opinion that the Cedar of Lebanon and the Deodar are varieties of one common species have been ably stated by our correspondent, who has, indeed, exhausted the subject in the form in which he has put it. But here, as in so many other cases, the question resolves itself into one of words. If it is maintained that these trees have descended from one common stock, in the lapse of ages, and are therefore specifically the same, we have nothing to object. The negro and the white, the game cock and the jungle fowl, the lapdog and the bloodhound—the dog himself, indeed, and the wolf—have all, in turn, been pronounced by competent authority to be of identical origin; and we are very far from questioning the soundness of such opinions. The same kind of reasoning which justifies such conclusions would undoubtedly lead irresistibly to the inference that the *Scotch Rose*, the *Dog Rose*, and the *Gallic Rose*, nay, even the *China Rose* itself, have a common origin; for are they not traceable the one into the other by insensible gradations and innumerable intermediate forms?

But although a wolf may be specifically the same as a Maltese spaniel, no one would, we imagine, feel inclined to confound the two, or to consider them strictly allied, except from a theoretical point of view. Such, we conceive, is the manner in which the Deodar question must be practically considered. Botanists may trace unsuspected resemblances; the differences by which the plants are popularly separated may be shown to be trifling and unimportant in the eye of pure science, but the fact remains that great differences do exist; and if they are permanent in a general sense, then the distinction of the two is unaffected. Let us see what counter-proofs can be produced in support of the essential (we will not say specific) differences of these two trees.

In the first place it is to be observed, that if the Cedar of Lebanon and the Deodar are sown in mixture, the seedlings are unmistakeably different. One is green, stiff, and erect; the other is glaucous and drooping. No one, we believe, ever saw a Cedar of Lebanon with its seedling stem turned downwards; no one a Deodar in any other state. This, then, is not a mere difference of color, but of physical constit tion. The two are as distinct, *ad incunabilis*, as negro and Caucasian infants.

In advanced age, the difference is preserved; the Cedar of Lebanon may become glaucous, but it does not droop; the Deodar may become green, but it will not straighten its leader; the one is always stiff and massive, the other light and graceful.

According to Dr. Royle, the wood of the Deodar is particularly valued for its durability; and Major Madden quotes Baron Charles Hugel as one of those who eulogise "the incorruptible Himalayan Cedar, the invaluable Deodar." Without insisting too much upon these expressions, it is fair to remark that they are in no way applicable to the timber of the Cedar of Lebanon, which is soft and of little value in this country; Major Madden says that even on its native mountains it affords timber, little if at all superior to the course, soft, warping wood of English specimens. Pococke, who saw the Cedars on Lebanon itself in 1744–5, asserts that their wood

does not differ from White Deal in appearance, and is not harder. The specific gravity of Deodar wood is reported to be 680, while that of Cedar of Lebanon is 613 (MADDEN).

If we look to the fructification, another striking difference is apparent. In form the cones are no doubt similar; but those of the Cedar of Lebanon never separate the scales spontaneously, as far as we have observed, while the cones of the Deodar as constantly fall to pieces.

Such differences then, existing between these trees, we are unable to acquiesce in their union under one specific name. That they are extremely unlike is admitted on all hands. The precise value of their differences is just as indeterminable as the word species is undefinable, and that point will probably be settled about the time when the circle shall have been squared.

On Atlas is found a third Cedar, now called in our gardens the Silver Cedar, by some botanists *Cedrus Atlantica*. That plant, indeed, differs from the Cedar of Lebanon in little except color, in which particular it resembles the Deodar. All that can be ascertained from an examination of detached fragments is, that its cones are not above half the size of a Cedar of Lebanon. Nevertheless, M. DECAISNE, one of the most experienced and judicious of French botanist, has just pronounced in favor of its being also a distinct species. We quote his words:

"M. P. JAMIN, director of the nursery at Biskara, to whom I had applied for information concerning the Atlas Cedars, writes, under date of December 17, 1852, that he has just returned from a journey of eighteen days to Batna, Lambessa, and the Peak of Tougour, taken for the express purpose of obtaining information concerning the tree, and that he visited carefully the latter locality in company with the keeper of the forests. He there found two species of Cedar. The peak on which they grow is about 1800 yards above the sandy soil which borders it; the more remarkable plants found at the foot of the mountain by M. JAMIN were, as might have been anticipated, Mediterranean species.

"Cedars began to appear at three-quarters up the slope of Tougour, where they produce a magnificent effect, and form a thick forest up to the very summit of the peak. It is not uncommon to find specimens forty yards high and one and a half yard in diameter at the butt. The two species live together, but they are distinguished at first sight. The Silver Cedar was covered with ripe cones; on that of Lebanon they were more behind, and flowers were still visible on some of the branches. The habit of the Silver Cedar is that of the Silver Fir—it is pyramidal, and its foliage is silvery; while that of the Cedar of Lebanon is dark green, and its branches horizontal, as we all know. The number of trees is estimated at 20,000; the finest are on the northern face of the peak. M. JAMIN saw many dead of old age, or struck by lightning. While he was writing the ground was covered two yards deep with snow; nevertheless *Asphodelus albus* and *luteus*, *Ranunculus flabellatus*, Violets, and a Retama (*Spartium monospermum*), were already in flower in sheltered places."

Thus, adds M. DECAISNE, horticulture is finally proved to have gained a new species, notwithstanding the doubts that have been expressed concerning it.—*Gardeners' Chronicle.*

---

DISEASE OF THE GRAPE IN EUROPE.—The accompanying accounts are translations from the French, which describe a new disease of the Vine in Europe, and gives the remedies which have been successfully employed in arresting its progress. I take pleasure in sending you these translations, which will, I hope, prepare our vine growers to meet this disease, in case it should cross the ocean. THOS. W. LUDLOW, JR.—*Yonkers, N. Y.*

"We read in the *Observer*, of Athens: An epidemic of a peculiar character has attacked all the vineyards of *Corinth* Grape throughout Greece. This disease, entirely unknown until now in this country (Greece), consists in a kind of glutinous matter, which covers all the bunches by degrees, giving them, at first, the color of ashes; but at the end of ten days, it dries them up, causing the berry, and sometimes even the bunch itself, to fall. From the latest accounts, the disease has, in many places, attacked other vines, and even trees.

"According to the best estimates, there is danger that two-thirds of the ordinary crop of the *Corinth* Grape, is destroyed. In several localities, the whole of the crop is lost.

"It has been observed that young plantations are less liable to disease than the old ones. The government, justly alarmed at the serious consequences which this unexpected misfortune may produce, has taken measures to have the disease investigated, in order to discover means of alleviating the evil, or arresting its progres, and to relieve cultivators and proprietors. A commission of men skilled in agricultural science has been sent to different places.

"It is true, that for the last few days the disease has been checked, but nothing induces us to admit that it has reached its period, or that we shall not have to deplore still greater ravages.

"The injury which the loss of the *Corinth* Grape crop may inflict on this country will be immense, when we reflect that the whole of the crop is exported, and that it produces an annual sum of from six to seven millions of francs."—*Agricultural Echo, July* 27, 1852.

"The fear created by a temporary affection which is called a disease of the vine, although in our opinion exaggerated, renders it a duty to publish the different means which have been tried to prevent or arrest it. We have already published the method communicated by M. Heuze to the Society of Agriculture in the *Echo* of July 15th. We now give the following note of M. Meza, apothecary and member of the Agricultural Society of Lyons, addressed to the Academy of Science:

"Since the appearance of this disease in the vine, I have studied its cause, its nature, and its progress. Numerous experiments have convinced me that it does not exist in the plant itself, but is developed under certain atmospheric conditions. This is the general opinion of those who have studied the disease from the beginning. I agree with them, that the white powder which covers the fruit, the bunch, and the branch, is a fungus which fixes itself upon the plant as the *l'acarus de la gale* attaches itself to animals, and ends by injuring it in a most grevious manner. With this view I have used a sulphate of protoxide of iron (green vitriol), dissolved in water, in the proportion of 250 grammes* of sulphate to 15 or 20 pounds of water, and I will publish the results:

"Lotions of ammonia used from the beginning of the Oidium have succeeded very well; but the effects are not certain as those of the sulphate of iron. Carbonate of sulphur, dissolved in water, appears to produce good results. Having begun this experiment only two or three days ago, I cannot, as yet, speak of it with certainty.

"The following method comes from Piedmont, and is entirely different from any heretofore recommended. The facts are not disputed, and if this treatment has caused the disease to disappear, it is all that can be asked; but without repeated proofs we shall find it difficult to believe in this Piedmontese remedy:

"Since the appearance of the disease of the vine, says the correspondent of beyond the Alps, M. Josephe Antoine Guida, a very skillful agriculturist and administrator of the domain of Dulzago (Piedmont), belonging to the family of the Counts Borzorneo, has directed his attention to this object. A constant study of the evil has led him to believe that the disease of the vine is due to an obstruction of the sap (humeurs). Starting his system of cure from this view, he made an incision at the foot of each vine, a short distance from the ground, of such a depth as not to endanger the vitality of the plant. The effect surpassed his expectations, and, after eight days of experiment, he was able to decide upon the efficacy of the treatment. If the disease had just begun, or had made considerable progress, in either case, the effect of the sulphate of iron was certain and evident in twenty-four hours. The black marks, covered with a white powder, disappeared entirely; the berry recovered its green color with the gloss, which is so strong an evidence of health; the berries which had burst healed over, and their growth proceeded, notwithstanding the scar. If the disease continues, the watering may be repeated without risk. This treatment is easy and cheap. Sulphate of iron costs about twenty-eight centimes per kilogramme,† and one kilogramme is enough for four or five acres. The action is rapid—we may almost say instantaneous. None of the puffed up published methods have this advantage For the sake of our wine growing districts it is to be wished that this remedy should be employed as soon as possible, for in many localities the disease is making frightful progress.

* One gramme is nearly fifteen and a half grains. † Kilogramme—Two pounds five drams and a half.

"I incline to the opinion that sulphate of iron might be used with advantage for the potato. It will be necessary to lay the potatoes for two or three days in a solution of iron before putting them in the ground. I have just watered with this liquid some potato plants attacked with the rot.

"Mr. DENIS ROVIDA, lawyer of Novara, a witness of the experiment, observed, that in those vines where the issue was abundant, the disease had disappeared as by enchantment. Grapes, which some days before had been severely attacked, had resumed their beauty and their vigor.

"It is worthy of remark that the intensity of the disease was always in proportion to the greater or less abundance of the issues. Wherever they flowed freely, the disease had disappeared: on the contrary, where the discharge was feeble, the scourge had continued to leave its mark. These significant symptoms may furnish a key to a system of cure which may possibly be extended to a large number of those plants which are attacked by a disease of an obstinate charater.—*Agricultural Echo, August* 10, 1852.

---

LONICERA FRAGRANTISSIMA. — A sub-evergreen hardy shrub. Flowers whitish, very sweet-scented. Native of China. Belongs to Caprifoils. Introduced by the Horticultural Society.

This is one of the plants obtained from China by Mr. FORTUNE, while in the service of the Horticultural Society, but has not flowered in the Chiswick Garden, where it has been merely known as a perfectly hardy "Caprifolium." In January last it blossomed in the garden of the Marquis of Salisbury, at Hatfield, whence Mr. WILLIAM INGRAM, the gardener there, sent us specimens, with the following note, on the 13th April:—

"The plant which affords me these flowers has been in bloom since January. It occupies an east wall, and has enjoyed no particular advantages of soil or treatment. The flowers appear with the earliest development of the leaves; and although not large or otherwise striking in appearance, compensate for any deficiency by their exceeding fragrance, combining the richness of the perfume of orange blossoms with the delicious sweetness of the honeysuckle."

LONICERA FRAGRANTISSIMA.

Its evergreen foliage distinguishes it from all the previously known species of the Chamæcerasus division of the genus.

# Editor's Table.

THE SPRING FLOWER GARDEN.—The spring flowers are always the most welcome. How pleasant the sight of brilliant beds of the Crocus and Snow Drop early in April, giving us assurance that dreary winter is over. Then close upon them, May brings us Hyacinths, with their delicate and beautiful hues and fragrance that fills the air. With them we have the gaudy Crown Imperials and the more humble variety of Frittilaria, with the Narcissus, the Pansies, Violets, and Polyanthus, and early Tulips. These all we have enjoyed before the trees have ventured to put forth a leaf or blossom. All these charming spring flowers we have named are of the easiest cultivation, and may decorate every garden large or small at a cost so trifling as to be within the reach of all. But they are sadly neglected; not because people do not admire them, or desire to have them, but because they forget to make timely preparation for them. How common it is for people to go about planting them just at the moment when they are coming into blossom, or quite as likely in full bloom. They are told, "this is not the time;" "well," the reply is, "if we do not plant now we shall *never*, for we forget them at the proper time." Now let us remind those who have been admiring their neighbor's gay spring flower garden, to make note of it at once, that next September and October they may provide for the spring of 1854.

The Hyacinth is the queen of all spring flowers, and deserves not only for this, but for the ease with which it is bloomed in the house during winter, to be an especial favorite with every lover of flowers. It is not a plant that demands years of care and culture before it yields a return; for if planted in autumn, next April or May shows all its beauty in the highest perfection. We have made note of a few good varieties that beginners may do well to remember:

Single red varieties: *Diebits Sabal Kanskie*, the most brilliant of all the reds; *Mars*, next to it; *Unique*, a distinct purple red—very fine; *Madame Ventenon; Felicitas;* and *Johanna Christina.*

Single blue varieties: *Willium I.*, very dark, almost black; *Lord Nelson*, also very dark; *Procelain Scepter*, very light and beautiful; *Staat General*, azure; *Franklin*, light; *Grand Vedette*, light; and *Blucher*, dark.

Single white varieties: *Grand Monarque*, *Helena*, *Vesta*, *Voltaire*, *Grand Blanche*, *Hercules*, and *Victoria Regia.*

All the above force exceedingly well.

Double red varieties: *Boquet Royal*, *Eindracht*, *Perruque Royal*, *Panorama.*

Double blue varieties: *La Majesteuse*, *Prince Saxe Weimar*, *Dryshoot*, and *Lord Wellington.*

Double white varieties: *A la mode*, *La tour d' Auvergne*, *Prince of Waterloo*, and *Anna Maria.*

---

FINE EARLY SPRING FLOWERING SHRUBS.—Among shrubs that make an early display on the lawn, we must call especial attention of young planters to the following, while their impressions are fresh on our minds. 1. The well known Japan Quince (*Pyrus Japonica*),

with its brilliant blood-red flowers. 2. The Deep Green Forsythia, with its clear yellow flowers. 3. The Crimson Currant (*Ribes sanguinea*). 4. The Gordon's Currant (*Ribes Gordoni*), crimson and yellow. 5. The Ashberry (*Mahonia aquifolia*, evergreen), with its bright yellow blossoms. 6. The Rose-colored Wiegela (*W. rosea*), with delicate rose-colored blossoms. We may add to these the Double-flowering Spirœa (*S. prunifolia fl. pl.*), as it follows them closely; has small double flowers. These form a beautiful collection for the early spring, all perfectly hardy and flourishing without any particular care or treatment. The Mahonia we must single out because it is not yet much planted, and is very desirable. It is evergreen, bearing the winter well, the best substitute we have for Rhododendrons; then it blooms so early and so profusely; it is low and spreading, and makes a rich mass of foliage on the lawn.

---

Black Warts on Plum Trees, and the Insect "Membracis Bubalus."—As every thing relating to this destructive affection of our plum trees is important, I have taken the liberty to enclose you a letter from Prof. Harris on the subject of the insect named, and also a twig punctured by the insect, furnished me by George Clarke, Esq., of Springfield, Otsego county. Mr. Clarke and his gardener have observed the attacks of the insect, as he informs me, for several seasons; and whenever he has left the twigs with the puncture upon them, the black warts have appeared the second season after the attack; but when he has removed the puncture carefully which contains the eggs, he says the limbs have not been affected. I give this, that examinations may be made, as suggested by Prof. Harris, in the hope that something may be elicited on the subject that may be useful.

Perhaps I should further state that Mr. Clarke is of opinion that the black color of the surface of the warts is occasioned, as noted by Prof. Harris, by the black fungi alluded to, but that the first cause of this excrescence arises from the deposit made by the insect. By examining the twig sent you, you will find the eggs deposited, as described by Prof. H. B. P. Johnson, *Albany, N. Y.*

B. P. Johnson, Esq.—*Dear Sir:* I have examined the punctured twigs and the insects which you sent to me with much interest. The insects are tree-hoppers, and the scientific name of them is *Membracis bubalus*, so called by Fabricius, the first describer of this species. You will find an account of the tree-hoppers, and an allusion to this species, in the second edition of my Treatise, p. 192. It is one of the kinds whose history has not hitherto been particularly investigated, and of which it is stated in my work, that "the habits of some of the tree-hoppers are presumed to be much the same as those of the musical harvest flies; for they are found on the limbs of trees, where they deposit their eggs, only during the adult state, and probably pass the early period of their existence under ground."

This little tree-hopper, it appears by the specimens sent, punctures the twig of the cherry and of the plum tree. This operation is performed by a piercer, which is lodged in a grove beneath the tail of the insect. The puncture begins with a small longitudinal incision through the outer bark of the twig, and is carried obliquely through the inner bark to the wood. In this wound the insect deposits its eggs, pushing them beneath the bark on each side of the incision. The eggs are very minute, of a white color, and long oval shape, and strikingly resemble those of the *Cicada*, except in being much smaller. The eggs appear to remain unhatched through the winter. On being hatched in the spring, or in the early part of the summer, the young probably, like the young of the *Cicada*, drop or descend to the ground, burrow beneath the surface, and live there upon the sap of the roots of plants, which they imbibe by suction through their sucking tubes. Like the *Cicada*, too, when they have come to their growth and are ready for their transformation to the winged form, they probably come forth from the ground, ascend the stem of some plant, cast their skins, and appear in the adult or perfect condition, in which they are prepared to continue their kind.

Whether these insects have any connexion or concern with the production of the warts on the cherry and on the plum tree, is a question of considerable importance. Your friend GEORGE CLARKE, Esq., who furnished you with the specimens sent to me, has satisfied himself, you say, that the warts originate from the punctures of these insects. Having watched the operations of the latter for three years past, he has found the warts to appear on the wounded twigs; and has found, also, that, when the wounded part was cut out, the production of warts was prevented. Since the receipt of your specimens, I have examined (not very thoroughly indeed) my plum trees, which have always had some warts on them every summer; but I do not discover any incision of the *Membracis* upon the twigs. This examination, however, is not to be considered as a sufficient or satisfactory test. My trees have been very severely pruned and shortened on the first appearance of the warts, and in this way have been kept free from the unsightly excrescences with which other trees are disfigured. I can detect the wart in its incipient stage, before even the delicate outer skin of the twig is broken by the tumid condition of the bark, and then apply the knife freely, and put fine salt or strong brine upon the wound. I propose this spring to wash over all the limbs and twigs of my plum trees with strong soft soap, in order to ascertain whether alkali will prevent the production of the wart—be their cause what it may. Before this is done, however, I will examine the trees again more carefully, and if any incisions of the *Membracis* are found, will mark the spot by tying around it loosely a piece of yarn—will then leave it untouched by the soap, and watch the result. I hope other persons may be induced to make the same experiment.

I should observe that *Membracis bubalus* is not an uncommon insect here, and that it may be found by a careful collector almost every summer. Yours, &c., THADDEUS WM. HARRIS.

*Cambridge, Mass., March* 28, 1853.

P. S.—You will find by my Treatise, page 70, that the black color of the surface of the warts on the plum tree is occasioned by numerous little black spherical fungi, which give to the wart a granulated appearance. The constant occurrence of these fungi on the surface of the warts, and upon nothing else, and the invariable death of the warts when the fungi have come to maturity and have shed their spores (or seeds), are of much significance in connection with the origin and history of this peculiar affection. T. W. H.

We are greatly obliged to Col. JOHNSON for the information he has communicated. Whether or no the "*Membracis*" produces the plum tree warts, it is well that attention should be called to it, that the precise nature of its depredations be understood.

The three great draw backs in fruit culture in America are the *pear blight*, the *curculio* and the *Plum tree warts*. These subjects merit thorough and ceaseless experiment and investigation.

---

NOTES BY A MICHIGAN CORRESPONDENT.—I notice your Baldwinsville correspondent's inquiry regarding cocoons on the apple tree. I have frequently detected them in my orchard here, but had not detected the moth. So far as I can ascertain, they are, in common with at least two other apple tree insects which abound here, perfectly harmless. One of these is a minute black-winged fly, not unlike a very small wasp or female ant, which lays clusters of shining black eggs —two to three dozen together—under the loose bark. The eggs are exceedingly abundant, but the fly appears to be scarce. In its winged condition, it probably has another habitat, but I have detected it laying its eggs in the fall. These latter, under a good microscope, are very beautiful, being of the deepest black with the very highest polish. Does it exist with you? If it does, you cannot fail, when cleaning your trees in the spring, to have seen the eggs.

There is another insect, of whose harmlessness I am not so confident. I believe it to be an *aphis*, but have never met with any description of it. It is a clumsy, soft, bed-bug-looking creature, about the size of this familiar pest, of a dark greyish-green, regularly striated across the

back. I find it only on the trunk and larger limbs of apple trees when the first warm weather commences, and it does not, so far as I have observed, remain longer than three or four weeks. It is gregarious, several hundred of them being herded close together, immoveable, apparently sucking the sap; but if disturbed, or frightened, they scatter instantly, some falling to the ground, others running with more speed than one would expect from their awkward appearance. I have not traced any direct injury to them, but as they are always full of sap, I presume they must weaken the tree. I kill them by taking a piece of cloth and covering the whole herd suddenly and crushing them. Can you give me name and particulars regarding them?

I read with much interest the article of your amusing and quaint correspondent, "Pisistratus." He is an amateur after my own heart—one of that class of men who dignify the mercantile profession, and having made money make good use of it, and make themselves and others happy by experimenting and ornamenting in a style which we less fortunate mortals can rarely afford. But he is a good example of the difficulty of writing clearly and understandingly on agricultural and horticultural topics. He complains of books "not imparting the *whole* knowledge required," and immediately falls into the same error—if *error* it can be called, when it is general with every one who is master of an art, when he attempts to teach it to those who know nothing of it. He forgets that what is perfectly familiar to him is "Dutch" to the others. And thus as regards his *rhubarb*—I should like to try his plan if I knew how. Can you induce him to favor us with a detailed account? When are the roots taken up? What are they planted in in the barrel—in earth, or only in fresh manure? Does he water them? Is the manure put *into* the barrel from the plant to the top, or only *over* the barrel, leaving a vacancy between the plant and manure? Was manure used in the house?—or, if not, what was used to force? Will he be so good as to explain, step by step? F.—*Grosse Isle, Mich.*

---

The Curculio.—I trust your correspondent, James Matthews, Esq., will pardon me for applying the heading of his article in the February number of this volume to my own use, when he finds that which I write will help to confirm his opinion as to the utility of digging about the trees as a preventive of the depredations of the curculio. Every fact relating to the curculio must be interesting to those who cultivate fruit trees.

It is a fact, that I never raised any cherries, plums, apricots, or nectarines from two hundred trees, embracing many varieties of the fruits named, since the trees were planted seven years ago, until last summer; and then only on a very limited scale, the fruit having been all destroyed by our common enemy.

The words *any* and *all* need a very slight qualification—my instinctive love for truth will not let them pass without it.

I had raised a cherry, a plum, a nectarine, and, I believe, an apricot; but, as Samuvhl Veller would have said, it was only an "agriwashon." Last season three trees partially escaped the ravages of the Turk—two of *Prince's Imperial Gage* plum bore each about one quart of perfect fruit, and one tree of the *Lombard* plum bore a peck of fruit, but some villainous boys stole it the day before I intended to gather it myself.

Having no faith in luck (as I never yet met with it), I attributed this trifling success to the kind of individual escapes you mention in your marginal note to the article by Mr. Matthews. Those three trees were manured and dug around some considerable time after the curculio had commenced operations—in the latter part of June; they had been neglected in the hurry of work earlier in the season: no other trees were dug around at the same time. As I did not expect any fruit, I did not look for it; my attention was called to those trees some time afterwards. A reason for the fruit hanging on those trees, and only on those, never occurred to me till I read the excellent article on the curculio by the above named correspondent. If this is a remedy, nothing can be cheaper. I hope it will be tried extensively this coming season. If it fails, no loss can occur by its application.

I do not understand the philosophy of it. Poultry will scratch in any place fresh dug and manured. They may in my case have rendered good service by frightening or otherwise annoying the curculio—as seventy or eighty fouls had the run of the place last season. WM. HOPKINS.—*Pomona Brunswick, near Troy, N. Y.*

---

CHINESE PEACH.—In the spring of 1850 I received, as a present from my friend, Mr. CHARLES DOWNING, of Newburgh, a peach tree imported from China direct, and as Mr. D. informs me it has not yet fruited with him, I presume mine is the first in this country.

On the 2d of March, 1851, the blooms first expanded, and on the 20th of July following a half-dozen peaches ripened. Last year they flowered about the same time, and ripened the 12th of July, the flowers expanding some ten or twelve days earlier than the general sorts. The fruit is of the second size, small stone and cling, greenish cheek tinged with pale red principally around the stem; inclined to be long and somewhat flat, much more so than ordinary peaches; the skin remarkably thin; flesh juicy, of the very highest vinous flavor; the whole appearance what would be termed beautiful. It has now been tested for two years by persons who are competent judges—for we flatter ourselves in this part of the world we know *what peaches are*—and all concur that it is the most delicious peach they ever tasted. To have it in perfection it must be taken from the tree, the skin being too thin to bear transportation. Last summer I took to a friend thirty miles on the railroad one packed in cotton, and the slight jar of the road caused it to turn almost black—I mean the color fruit becomes when it gets bruised. The original tree is of a low dwarfish habit, while those I have budded are of a strong, vigorous growth. I have disseminated it freely, giving buds to all who have asked, and am in hopes that in the course of a very few years it will be common all over our country. I consider it the most valuable acquisition we have ever received in that department, and if I can get a competent person will send you a correct drawing this summer, provided we don't lose our crop. HENRY LYONS.—*Laurel Park, Columbia, S. C.*

---

OSAGE ORANGE.—I notice in the number of the *Horticulturist* you were so kind as to send me the request of a gentleman to be informed "whether the Osage Orange is liable to throw up sprouts from the roots of a hedge?" I can, with confidence, give assurance that it will not. I have 16 rods of an Osage Orange hedge between my garden and orchard, which has been repeatedly, deeply, and closely plowed on the orchard side, and closely and well spaded on the garden side, without inducing a sprout to show itself. And, further, a few isolated plants were left in the nursery bed to ascertain what they would come to in lat. 42° north, and the ground around them used for onions, beets, salsify &c., without bringing up a sprout. And, further, in order to ascertain how late the Osage Orange could be cut down in a hedge without destruction, on the 29th day of June last I sawed down one of these Osage Oranges even with the ground which now exhibits five healthy sprouts from about the stump *only*. The plants of the Osage Orange are very distinctly of the tap-rooted kind.

The defection of seed so frequently complained of, I believe to be generally a deficiency of soaking. I met, on my first undertaking the culture of the Osage Orange, with the almost entire loss of $10 worth of seed, which I procured in Pittsburgh, although I carefully followed the directions of the nurseryman, in soaking six days and changing the water daily. The following year I soaked the seed two weeks, changing the water, producing tolerable success. Last spring a quantity of seed was set aside in a marble mortar filled with water, and from neglect was not discovered until four weeks after planting; I then planted them. The season of soaking had now been between six and seven weeks, and I believe the seeds all vegetated and the quicks are now equal, if not superior, to those planted a month previous. I have used different native plants for live fencing, with indifferent success. I am now under the impression that the Osage Orange is better adapted for this purpose than anything else obtainable in the United States. By proper

culture, the plants can probably be acclimated to any region, hardly excepting Iceland; and why is it not more generally cultivated and appropriated? Without question, for lack of that information so generally proffered in agricultural and horticultural papers. G. A. MEEKER.—*Jefferson, Pa.*

## MEMORIES OF MAY.

BY THE AUTHOR OF "FOREST GLEANINGS."

"*Q.* Flowers, wherefore do ye bloom?
*A.* We strew the pathway to the tomb."—*Jas. Montgomery.*

From earliest childhood to extreme old age flowers form one of our most innocent, as well as most delightful, sources of enjoyment, pure and unsullied by aught of the grossness that mingles with more animal pleasures. The first dawning of our intellectual nature may be dated from the moments when the babe stretches forth its tiny hand to grasp the flowers in its nurse's bosom. The unborn sense of the beautiful in form and color, springs to life in the soul of the child; it awakens at once to the enjoyments of a new and pleasurable sensation.

I love to see an innocent child playing with flowers—fresh, fair flowers—meet emblems at once of its beauty and its frailty—for "he cometh up and is cut down as a flower of the field." How charming are the verses of our old English poet, addressed to Daffodils—

"Fair daffodils we weep to see
Thee haste away so soon."

—and those "To Blossoms." They are so beautiful in their sweet simplicity, that I will quote them, assured that those who know them will re-read with pleasure such lines; and those who never read, will read them again and again, as I have done ever since I was a child.

### TO BLOSSOMS.

"Fair pledges of a fruitful tree,
Why do ye fall so fast?
Your date is not so past
But ye may stay yet here awhile,
To blush, and sweetly smile,
And go at last.

"What were ye born to be?
An hour or half's delight,
And so to bid good night?
'Tis a pity Nature brought ye forth
Merely to shew your worth—
Then lose ye quite.

"But ye have lovely leaves, where we
May read how soon things have
Their end; none e'er so brave
But after they have shewn their pride,
Like us, awhile, they glide
Into the grave."—*Rob't Herrick.*

The freshness and spirit of old IZAAK WALTON seems to breathe through these lines—and then his rural poetry recalls the time when maids went Maying, and fairies danced the lea.

In this work-day, money-making world, we have cast aside, as old fashioned garments are thrown by, all taste for the simple habits and rural pleasures that marked our ancestors. The dead go to the grave undecked with the flowers which the hand of duteous affection used formerly to lay upon the pulseless heart and clay cold brow. The wreath that used to be suspended in the church—that pure and emblematic hatchment which even yet is hung up by the peasant children of France and Italy—is no longer displayed to tell that one bud or one blossom has dropped

from the family tree to wither in the dust. The green turf that covers the remains of the loved one is no more strewn with flowers. Is our love less warm, or has fashion forbidden the exercise of the kindly feelings of our hearts, that we no longer

"Bring flowers for the brow of the early dead."

The artist decks our brides and brides-maidens with roses and orange blossoms, but the fragrance of nature is wanting—the dewey freshness of buds and flowers from the garden and field.

Where now are our May Queens? How lovely is the remembrance of May-day in the meadows, on the banks of the river Daveny in Suffolk, where I passed my happy childhood. What weeks of joyful anticipation that day gave birth to. My father's family came from the North of England, where still among the fells and lakes many of the rural sports and primitive customs of the people prevail, and he encouraged in us a love for May-day sports.

I was one of the youngest and a pet, and so my sisters always conferred on me the May crown and sceptre; and truly, for the time being, no queen could be more happy. My crown, a flowery chaplet—my sceptre, a flower-encircled wand of fresh cut hazel from the copswood—and my throne, a green mole hill in the meadow by the clear flowing river, while all the sisterhood danced round and sung the old pastoral song of "Kate of Aberdeen." The crown was worn till night and then cast aside to wither in the dust.

I have often heard my mother tell how she was frightened on the night of May eve by one of my sisters walking in her sleep. The children were in the habit, on May morning, of rising up by sunrise to go Maying, and to gather laps full and baskets full of cowslips, primroses, blue bells, and other spring flowers, to make garlands with. My mother was in bed but not asleep, when the door of her bedroom slowly opened and a little figure in a long white night-dress came in; passing the night light and the table, it came to the side of the bed and held up the full folds of the night gown in its little hands, saying, as it did so, "Fowers Lila, Fowers Lila—more fowers." Her dark eyes were rayless and wide open; but she was sleeping, though her spirit was abroad gathering flowers for the coming festival of May-day.

Not more than half a mile from the old house where I passed my childhood, there was a deep, sandy road called the St. Margaret's road; from this there branched off a little narrow lane, which we called the little lane; on one side it was shut in by steep sand banks, and on the other by a high grassy slope, the boundary of some upland meadow; on this grew a wild, irregular growth of shrubbery and tall oak trees. Among this jungle, the woodbine and wild briar rose entwined themselves, mixed with brambles and briars, forming luxuriant bowers all carpeted beneath with wood strawberries and wild flowers of every hue. A little tinkling rill that a child might step across, run down on either side this sylvan lane; from this slender streamlet we drank the most limpid water from nature's own chalice—the hollow of our hands—or sipped it like the fairies we had read so much about, from the acorn cups that strewed the grass. The banks of the rill were lined with violets—deep purple, fragrant violets—pale primroses, and the little sunbright's celandine, with that graceful meadow saxifrage, (known in olden time by the homely name of ladies' smocks), all silver white, as SHAKESPEARE calls them. What stores of ripe strawberries we gathered in that little lane, and threaded, like crimson beads, upon a stalk of dried grass—a little peace offering for our mother when we returned with soiled frocks, or our leave of absence out-stayed.

This little lane was our childish paradise—our garden of Eden—and in it we laid out and planted a garden for ourselves. Like Canadian squatters, we took to ourselves right of soil and made a free settlement *sans ceremonie*.

Our garden was laid out right daintily with a grotto of green moss decorated with striped snail shells, the walks were sanded, and the parterres planted with double daisies and violets, polyanthuses and sweet Williams, daffodils, snowdrops, and cloth of gold crocusses. Our trowel was an old rusty iron ladle and a broken bladed carving knife, while we daily watered our garden with

an old battered tin tea-pot and a leaky japaned mug; and yet, in defiance of these rude implements, our flowers grew and the garden blossomed in the wilderness; and there, sheltered from sun and shower, among the bowery honeysuckles, we sat reclined on the green turf bank, listening to the poems and tales that my two eldest sisters used to relate. Even then history was the theme that most delighted those two most remarkable sisters,* and many was the tale of thrilling interest that was recited to the juvenile auditors, who little thought that those talents were at a more distant date to claim the approbation of an applauding public.

Many years after this, I revisited the little lane. A few crocusses and daffodils, choked with long grass and weeds, were the only flowers that remained to "mark where a garden had been." I stooped and drank of the little rill and picked a nosegay of sweet violets as a memento of the haunts of my childhood.

Tell me, ye who sigh for the crowded ball-room and gay theatre, what are the pleasures of the world compared to the memory of days spent in early youth among the Flowers of May.

---

Several articles (among them the proceedings of the Pennsylvania Horticultural Society) prepared for this number are crowded out. We shall endeavor to meet all demands upon our pages next month.

---

## Notices of Books, Pamphlets, &c.

The North American Sylva: Or a Description of the Forest Trees of the United States, Canada, and Nova Scotia, considered particularly with respect to their use in the Arts, and their introduction into commerce; to which is added a description of the most useful of the European Trees. Illustrated by 156 copperplate engravings, by Redonte, Bessa, &c. Translated from the French of F. Andrew Michaux. With Notes by J. Jay Smith. In three volumes. Published by Robert Peabsall Smith, Philadelphia.

We are happy to learn that the superb edition of this great national work published by Mr. Smith, and which has already been noticed in the *Horticulturist*, (volume 6, page 541,) is in such demand that copies cannot be supplied as fast as they are called for. This speaks well for the growth of taste among the American people and for the interest they are taking in the productions of their own forests. It is a work that deserves the most complete success, not only for the important information which it contains, but for its elegance. The style of the engravings is good, and the coloring, done in this country, is, in many respects, equal to the original French edition. Those editions have long been out of print, commanding, before this appeared, no less than one hundred dollars a copy; that price was offered to our late American Ambassador in London for Michaux alone. The present edition, better translated than the English one which appeared in Paris, is now to be procured for *twenty-four dollars;* and with Nuttall's Continuation, also, in three superb volumes, the whole is offered for *forty-five dollars.*

From the nature of this work it can never become a "common book;" indeed, to possess it will always confer a sort of distinction. It is even now somewhat difficult to procure a copy of this new edition, so much time is necessarily employed in coloring the plates by hand, as so few artists exist in this country who can be trusted to work upon them. They give regular support to a number of ladies and gentlemen who do little else than color from morning till night. The result is pictures entirely fit to be framed for ornamenting a drawing-room. By a little study of its valuable plates and comprehensive letter press, all may identify the products of our splendid forests, and learn to love what is so beautiful and worthy of study. If it were only to be able to know exactly all our American Oaks, or if

* Elizabeth and Agnes Strickland, authoresses of the Queens of England and Scotland.

they only were figured by this master of engraving, the work would be cheap, nay invaluable; but in addition, we have in MICHAUX and NUTTALL all the trees of our continent. The first named author described the trees of the Atlantic slope, and NUTTALL continued the labor to the Pacific, including Oregon and California. The trees from these new possessions are already finding their way to our nurseries and gardens, and NUTTALL's volumes are therefore indispensable, for his are the only descriptions extant of these western novelties.

Mr. SMITH, the editor, happily remarks in his introduction, "It was a singular circumstance, and a happy one for advancing science, that Mr. NUTTALL arrived in this country the very year that the younger MICHAUX left it. * * * * * The two works are now one and homogenous; the former most highly valued by all lovers of trees, and the latter destined to be equally so." *We* may add that it has proved also fortunate that a publisher has been found to encounter the risk and labor attending the publication of such works, and who was willing to give the personal attention requisite to turn out every copy of the *two hundred and seventy-eight* plates in such excellent style and condition. It is to be hoped that he will ultimately be entirely remunerated. This he never could have been but for another fortunate circumstance, which might almost be called an accident—the liberal contribution of books and money to several scientific institutions in this country, especially to the Academy of Natural Sciences at Philadelphia. The late WILLIAM MACLURE was in Europe at a period when all literary property was at an enormous discount, owing to the state of war in which France had involved her. Among other treasures which he purchased and sent home, was REDONTE's original copper plates of MICHAUX's great work. They were in beautiful condition—entirely without a blemish. Mr. MACLURE's sole object was to enlighten his countrymen, and he caused a small edition, on very bad paper and executed carelessly by his agents, throughout, to be issued; but it proved an abortion—only purchased for the want of a better. Still, in hope it might sometime have a better fate, he presented the whole of the copper to the late eminent President of the Academy of Natural Sciences, the lamented SAMUEL GEORGE MORTON, M. D. He was animated by the same public spirit as Mr. MACLURE, and gave the use of the plates gratuitously to the present publisher, on condition only of his producing an edition to rival the original French copies. This has at length been done at a price that could not have been attained but for such distinguished liberality. We have given this history, both because it is interesting in a literary point of view, as well as to do justice to the gentlemen who have thus raised monuments for the gratitude of their fellow citizens. We have in the first place the father and son, MICHAUX, and NUTTALL, three individuals the best qualified for the purpose as authors, now neither claiming nor desiring the slightest compensation for their years of labor, toil, and travel; we have Mr. MACLURE and Dr. MORTON giving their contributions of the plates gratuitously; and finally Mr. SMITH, the editor, himself a devoted lover of the subject, with assistance in correcting the translation, superintending this edition, also, we are informed, gratuitously; and a young publisher, with little hope of even remuneration, placing the work at a very moderate price before the public.

The elder MICHAUX is deceased, having fallen a sacrifice to his scientific zeal on the coast of Madagascar; REDONTE, the engraver, who has left such a world-wide reputation by his engravings of the work, the *Liliaceæ* and *Rosaceæ*, &c., is no more; both Mr. MACLURE and Dr. MORTON have lately paid the debt of nature.

The elder MICHAUX commenced the "Sylva," by describing the Oaks of America; his son F. ANDRE MICHAUX, who completed it, still survives, and resides in Paris at the age of

eighty-three years. He displayed a vocation for the natural sciences at an early age, and accompanied his father on his voyage to America. In 1802 he was employed by the French government to explore the country west of the Allegany mountains, and published in 1804 his travels in that then distant and almost unexplored region. A second volume contained a memoir on the naturalization of roots of American forest trees in France. In 1810 he published the *Sylva*. No country can boast a more magnificent or useful account of any part of its natural productions; it unites the advantages of a work strictly botanical, and of one relating to the useful arts, collecting all the scattered details which books or experience could furnish him, with respect to the application of the various kinds of wood to the purposes of life, which are extremely useful and important at the present day. The fame of both father and son may be regarded as the common inheritance of France and the United States.

If we had more space at our command, it would afford us pleasure to extract some striking remarks of the editor of this edition on planting, and on the value of particular trees in ornamental gardening which are now sadly neglected. What more beautiful, for instance, than the *Virgilia lutea*, or yellow wood, with its panicles of locust-looking blossoms and its remarkable trunk and deep yellow autumnal foliage, which Mr. Smith strongly recommends, and not too warmly, as a tree to be eagerly sought for. A native of a small district in Tennessee, it has been occasionally seen in nurseries for sale, but its value being little known it is now very rare among us. Mr. Smith's additions can always be known by being inclosed in brackets, and they constitute no small addition to the value of the work. They embrace notices of the mode of culture, remarks on the beautiful and ornamental, and fitly accompany the more scientific observations of Michaux.

By permission of the publisher of this work, we present in this number a drawing of the *Magnolia glauca* as a specimen of its illustrations. This is a beautiful small tree abounding in the swamps of New Jersey and southward, called the "Swamp Laurel" or Magnolia. Its leaves are four or five inches long, green and shining on the upper surface and glaucous or silvery beneath. The blossoms are about three inches in diameter, pure white, and so fragrant that a Magnolia swamp diffuses its fragrance for upwards of a quarter of a mile around. It is readily propagated from seed which is easily obtained. The soil should be in part, at least, peat or leaf mold, and the situation somewhat sheltered.

## Answers to Correspondents.

(Geo. Leslie, Toronto.) Your seedling Cineraria flowers came safe to hand. They are all very pretty, and some of them well worthy of being named and propagated. No. 1 is the best in form, with a good, broad, thick petal; center white, with a deep edging of violet purple. Nos. 6 and 8 we think most showy. Nos. 1, 3, 6, 8, 9, and 13, are most worthy of being retained.

(J. G. R. K., Lovettsville, Va.) The shrub to which you refer, is the Rose Acacia, or Moss Locust, (*Robinia hispida*,) quite common and very pretty.

The December number was sent as requested.

Will you give a subscriber some information where the Rough Plate Glass, spoken of in the *Horticulturist*, Vol. 7, No. 11, Page 519, can be had, and at what price? J. B. B.

It is manufactured in England. Any importer of glass can procure it for you. We can not say what the price is.

Fruit Rooms.—In reply to several inquiries in regard to fruit rooms, we will say that a dry, cool, clean cellar answers a good purpose. At this moment (May 10th) we have twelve or fifteen varieties of winter apples and half a dozen of winter pears in fine condition, in a dry, cool cellar, under a portion of the house seldom heated during winter. The floor is laid with plank, and shelves of whitewood are fitted up around the walls. The pears have mostly been kept on these shelves; some in boxes between layers of rye straw. The apples have been kept in barrels.

A fruit room should not be occupied otherwise, as the frequent opening and shutting of doors produces sensible changes in the temperature unfavorable to the fruit. Cleanliness is a great point; the removal frequently of all decaying fruits, and of everything that can possibly taint the atmosphere.

---

Fruit Room.—For a number of years past a portion of my time and attention has been directed to the pleasing task of collecting and rearing of many of the choicest kinds of fruits and fruit trees, selected from the various catalogues and nurseries within a reasonable reach of this place; and however excellent or desrable the rich products of such a plantation or fruit garden may be to those whose hands have planted and daily watched them, with the pleasing prospect of an approaching harvest, until we are enabled to partake of the choicest fruits of the vine, still we find some of these, from the common mode of gathering and preserving them, of short and limited duration, and more especially in regard to the pear, the peach, and the grape. Hence, I have come to the conclusion to furnish myself with a fruit room for that particular purpose, and wish to make some inquiries in relation to the same. I wish, if convenient, you would answer the following queries in a coming number, or give us an article thereon.

I shall first give a description of my plan. My cellar is of a dry and gravelly substance. The surface of the ground at the west end is even with the bottom of the cellar. I propose having the fruit room partly in the north-west corner of the cellar, taking in four or five feet further west, and having a half roof sloping upwards to the west end of the house. This projecting part is guarded on the north by a wood-house extending several feet further west, and shaded on the south and west with a thick foliage of Maple and Locust. The entrance door is from a hall in the cellar.

Will such a location be a suitable one, economy and expediency taken into account? And if so, what would be the best materials for the inside wall, lath and plastering or matched boards? Also, what would be most suitable for filling in the same, dry saw-dust or tan-bark? Will boards or cement be best for the floor of the room?

Any further information would be interesting and desirable. In regard to the ventilators, how many would be necessary? How constructed and regulated?—and such other information as may be deemed necessary. Daniel E. Gerard.—*Haviland Hollow, N. Y.*

We should think the position a very good one. For filling up the hollow wall we should prefer coarse saw dust or shavings from the planing mill, and dry, well seasoned boards to lath and plaster—one and a half or two-inch plank will be better than inch boards. Cement will make the better floor, as it will keep out vermin.

---

The Blue Ash.—A correspondent in Chillicothe, Ills., writes thus:

"One word as to the prettiest lawn or street tree that grows indigenous in this section. I think the Blue Ash, as it is called here, is, on the whole, ahead of any other tree. Its foliage being of a very dark green with a shade of blue, and having a fine globular head, renders it an object to attract the attention of the most careless observer. It somewhat resembles the White Ash, but the foliage is more dense, the tree more symmetrical, and the wood far more durable."

Will you permit a subscriber to the *Horticulturist* to trouble you with the question—How to rid a garden of a worm which infests it? A portion of my garden was filled in with sandy loam two years ago and since liberally manured. I now find it overrun with worms about three-quarters of an inch long, whitish colored and having numerous feet. In stirring up the surface I find abundance of what seem to be nests of them, containing clusters of 100 together. I believe they are eating up all my Crocus and Pæony bulbs, and am afraid they will ruin the garden. I find them also on my Asparagus bed. Can you suggest a remedy? I shall be extremely obliged to you to do so. Wm. Brooks.—*Little Falls, N. Y.*

The most effectual method known to us of ridding a garden of these destructive grubs is to have the ground thrown up into narrow ridges in the autumn, so as to expose it thoroughly to the frosts of winter; also to apply a dressing of warm lime, ashes, &c. These operations must be repeated annually, and in every spadeful that is thrown up they should be searched for and killed.

---

Inclosed is a piece of a shoot of the American Black Raspberry, which we cultivate. On splitting it open, you will find it filled with the eggs of an insect. It attacks the young shoots of our trees while they are growing, and punctures them in rows, like the shoot before you. Our Peaches, Plums, Cherries, Climbing Roses, Weeping Willows, and Raspberries, are attacked every summer. To the Willow it is always fatal, the tree dying down to the point of attack. Please let us know what it is and how to get rid of it. Noble S. Hammond.—*Essex, Clin. Co., Mich.*

Cut off and burn all shoots like this, in which eggs have been deposited.

---

I am getting together a compost heap formed of swamp muck, barnyard and stable manure, lime, ashes, (unleached,) and charcoal. The ashes are, perhaps, one-fifth lime, as they come from the kiln; the lime is air-slaked only when it goes in the heap. I purpose having by August from six to seven hundred single cart loads in the heap, which is to be used in planting an orchard in the fall and spring (about twenty-seven acres) in Apples and Pears. Now what I wish to know is whether it will be best to dig holes four feet square and use the compost when planting, or apply it to the surface, say in strips ten feet wide, where the trees are to stand, and plow and trench plow in the month of September, so as to be ready for planting in October and November; and whether it is a good plan to use the lime ashes, as stated above, and what proportion? I have been using so far one-tenth. My land is good sandy loam on clay subsoil, yielding good crops of wheat and corn. A Subscriber.—*Frederick Co., Md.*

The materials of your compost are excellent, but it will be all the better if at least *one-half* be stable manure. Twenty-six one-horse cart loads to the acre is a small allowance, and must be applied economically. It might be as well to spread it on the strips intended for the rows of trees and plow it in. The trees in this way will get as much as may be necessary for two or three years, and after that they may receive top-dressing if they require it. Manure should never be placed immediately on or about roots of trees at time of planting, but placed so near that their young roots will soon strike into it. We prefer to use lime ashes as a top dressing, to mixing with manure.

---

I have received from France a *Rhododendron Pontium*. Is it very hardy in this climate, or must it be covered in winter? Must the *Fastolff* Raspberry be protected in winter in the same way as the *Red Antwerp*? A Subscriber.—*New York.*

We would advise a slight protection for both, though in most seasons they might get along without it. The Rhododendron suffers most from sun in the winter.

The Transportation of Trees and Plants.—As one of the craft, and having considerable to do with shipments of trees and plants, I wish to know whether there are on record any legal decisions with regard to cases of neglect or delay in forwarding. Though such occurrences are very common, and often very aggravated, I do not now remember to have heard of any prosecutions. As important an item in transportation as trees and plants have become, it certainly seems to me high time that forwarders were a little better posted up in their duties and the public in their rights.

If you know any decisions please inform us. If there are none now there ought to be, and, though a "peace man," I would, if need be, cheerfully contribute to test some (reasonably provoking) case. F. K. P.—*Delevan Nursery, Wis.*

This subject has a most important bearing upon the interest of Horticulture at this moment. Railroads are so overrun with freight, and forwarders are so careless, that it has become next to impossible to forward trees with reasonable dispatch. It is not uncommon for parcels to be delayed between Rochester and Buffalo (about 75 miles) some six or eight days. Can we not have an arrangement made with some of the express companies at moderate rates? Something must be done. We believe that forwarders are responsible for any loss incurred by unreasonable delay; but there are so many excuses, and it is so difficult to reach the culpable party, that law is of little use.

---

Bugs in Peas.—From the universal complaint of bugs in peas, I am led to infer that there is no known variety exempt. Is this so? However this may be we have a red variety (whereof the enclosed is a sample) of good flavor and productive, that during seventeen years constant cultivation in our family, has never, that we know of, till the past season, shown a buggy pea, though often grown with other badly affected varieties. When grown together, mixed with these affected sorts it has seemed in a measure to protect them, for there would be comparatively few buggy ones. Do you know the variety? (1.)

For years now I have been beset and tantalized about a "*Connecticut* White Rose," so very large, and double, and nice, and tall growing withal, that all I can possibly get hold of in the nurseries are no comparison. The *Globe White* is pretty, *Madam Plantier* and *Madam Hardy* very fine, but they are not *the* kind after all. In utter despair I appeal to you—what can it be? (2.) F. K. Phœnix.—*Delavan, Wis.*

(1.) No.

(2.) Probably the old *White Provence.*

---

Will you please answer the following questions in the next number of the *Horticulturist*?

What time do you consider the best to plant Osage Orange seed? (1.)

Does Red Cedar make a good hedge? and if so, should it be shorn as hedges commonly are? (2.)

When is the best time to transplant evergreen trees, such as Spruce, Hemlock, Silver Spruce, and Cedar? (3.)

Can Mountain Ash be propagated by cuttings? (4.) A Subscriber.—*Normandale, C. W.*

(1.) About the first of May, but any time during the month will do, and even later if necessary. Soak at least twenty-four hours in warm water before sowing.

(2.) The Red Cedar does make a beautiful hedge. It requires shearing at least once a year.

(3.) From the middle of April till the middle of May. Perhaps the very best time is from the 1st to the 15th of May in your climate.

(4.) Always propagated from seeds, or by grafting or budding to increase new or rare sorts.

Neotarines.—The fruit of my *Elrudge* Nectarine dried up last summer just before its period of maturity. The tree was of perfectly healthy and vigorous growth, three years from the nursery, had been regularly shortened-in, and had brought its fruit to perfection in 1851. The most careful examination of three or four of the dried fruits disclosed no trace of an insect. Overbearing could not have been the cause, as the severity of the previous winter had spared upon this tree only twelve or fifteen nectarines. The season could hardly have caused it, for a *Hunt's Tawney*, thirty feet distant, and an *Early Violet*, only twenty feet, brought their respective fruit to perfection, in the same soil, and with the same exposure and treatment. What could have been the cause; and what is the remedy or preventive? Subscriber.

Cases of this kind occur often, that do not admit of a sound explanation, especially by persons that are unacquainted with all the circumstances.

A lady correspondent writes us as follows:

"I have a beautiful White Pine, thirty feet high, covered with the *American Blight*, or Woolly Aphis, which I fear will destroy it unless you can suggest a remedy. Will sulphur, or any other medicine, inserted into its body enter the circulation and destroy the pest without injury to the tree? It is so large I cannot have access to them with any external application, unless showering with some *medicamentum*, or tobacco water, will prove effectual."

No hope whatever from *internal* applications. We really cannot suggest a remedy except the unpleasant one of cutting down trees so affected. The Scotch Pine is likely to fall a prey to it. We published some months ago a communicatien on this subject from H. W. Sargant, Esq., of Fishkill, on the Hudson. On a small scale we may manage this insect, but on large trees it is beyond control.

## Horticultural Societies.

Albany and Rensselaer County Horticultural Society.—We have received the list of premiums, rules, and regulations for 1853. The following is the list of officers and committees:

*President*—HERMAN WENDELL, M. D.

*Vice Presidents*—Henry Vail, C. P. Williams, Wm. Newcomb, E. Dorr.

*Secretary*—Joseph Warren.

*Treasurer*—Luther Tucker.

*Managers*—V. P. Douw, B. B. Kirtland, J. M. Lovett, L. Menand, E. Corning, Jr., James Wilson, J. S. Goold, E. E. Platt.

Committees for 1853.—*Fruits*—Dr. Herman Wendell, Albany, chairman. V. P. Douw, Greenbush; E. Dorr, Albany; B. B. Kirtland, Greenbush; D. Thomas Vail, Troy.

*On Green-house Plants and Green-house Flowers*—Wm. Newcomb, chairman. J. S. Goold, Albany; W. A. Wharton, Albany; Wm. Janes, Bethlehem; W. Buttercase, Watervliet.

*On Gardens*—Dr. Herman Wendell, Albany, chairman. B. P. Johnson, Albany, and C. P. Williams, Albany.

*On Flowers*—J. M. Lovett, Albany, chairman. C. P. Williams, Albany; J. McD. McIntyre, Albany; J. Mayell, Albany.

*On Floral Designs, Bouquets, &c.*—J. M. Lovett, Albany, chairman. W. A. Wharton, Albany; Joseph Warren, Albany; John Jacob Wendell, Albany. *Ladies' Committee*—Mrs. V. P. Douw, Greenbush; Mrs. W. A Wharton, Mrs. Jas. Goold, Miss Reynolds, Miss Pierson, Albany.

*On Discretionary Premiums*—E. P. Prentice, Bethlehem, chairman. D. T. Vail, Troy; Jacob Henry, Watervliet. B. P. Johnson, Albany; S. Morgan, Watervliet; W. Durant, Watervliet.

*On Essays, and on Establishing Synonyms of Fruits*—Joel Rathbone, Bethlehem, chairman. Amos Briggs, Schaghticoke; Luther Tucker, Albany; John H. Willard, Troy; A. T. Richards, West Troy.

*On Vegetables*—E. E. Platt, Albany, chairman. Dennis Belden, Troy; Dr. John Wilson, Bethlehem; Wm. S. Shepherd, Watervliet.

*On Arrangements for Exhibitions*—J. McD. McIntyre, Albany, chairman. J. S. Walsh, Elisha Dorr, J. Dingwall, James Wilson, Erastus A. Pease, and Joseph Warren, Albany; D. D. T. More, Watervliet.

---

The Worcester County Horticultural Society will hold its fourteenth annual exhibition of fruits, flowers, plants, and vegetables, at Horticultural Hall, Worcester, Mass., on the 21st, 22d, and 23d of September, 1853. The Society will also hold a series of summer exhibitions on Saturday of each week, commencing in May, (of which public notice will be given,) and closing August 27th. The following is a list of the committees for 1853:

*On Apples*—Dr. Rufus Woodward, Worcester, chairman. David S. Messenger, Wm. T. Merrifield, Worcester; Thomas Bond, North Brookfield; S. P. Champney, G. A. Chamberlin, Worcester.

*On Pears*—Dr. William Workman, Worcester, chairman. J. C. Moore, Charlton; Emory Bannister, C. H. Hill, C. C. Coleman, Worcester.

*On other Fruit*—Lewis A. Maynard, Worcester, chairman. J. F. Allen, Worcester; J. C. Stone, Shrewsbury; Ansel Lakin, James R. Wall, Worcester.

*On Flowers and Decorations*—Samuel F. Haven, Worcester, chairman. C. Wheeler, Clarendon Harris, Horatio Phelps, Wm. R. Paine, Worcester.

*On Vegetables*—George Jaques, Worcester, chairman. D. W. Lincoln, Worcester; C. W. Forbush, Grafton; Gardiner Paine, Joseph Lovell, Jr., Worcester.

*On Arrangements*—D. Waldo Lincoln, Wm. M. Bickford, Geo. W. Richardson, Sam'l H. Colton, D. S. Messenger, Charles Paine, Samuel Flagg, S. P. Champney, Joseph Lovell, Jr.

---

Delaware Horticultural Society.—At a stated meeting of the Delaware Horticultural Society, held April 19th, 1853, on motion of E. Tatrall, Jr., the Secretary was requested to forward an abstract of the proceeding of each meeting to the editor of the *Horticulturist*.

The following report was received from the fruit committee: The fruit committee report that Thomas Stapler presented two dozen each of the *Carthouse*, or *Gilpin*, and *Greyhouse* apples, which had been kept one hundred and five days, one-half of each variety in the garret, the other half in the cellar. The *Carthouse*, kept in the cellar, were pronounced firmer and handsomer than those kept in the garret, but the latter more juicy and higher flavored, though leathery in texture. The *Greyhouse*, kept in the cellar, were nearly half of them rotten—the sound ones tasted were better flavored and firmer than those kept in the garret, which were wilted and somewhat speckled. J. F. Wilson, M. D., Chairman.

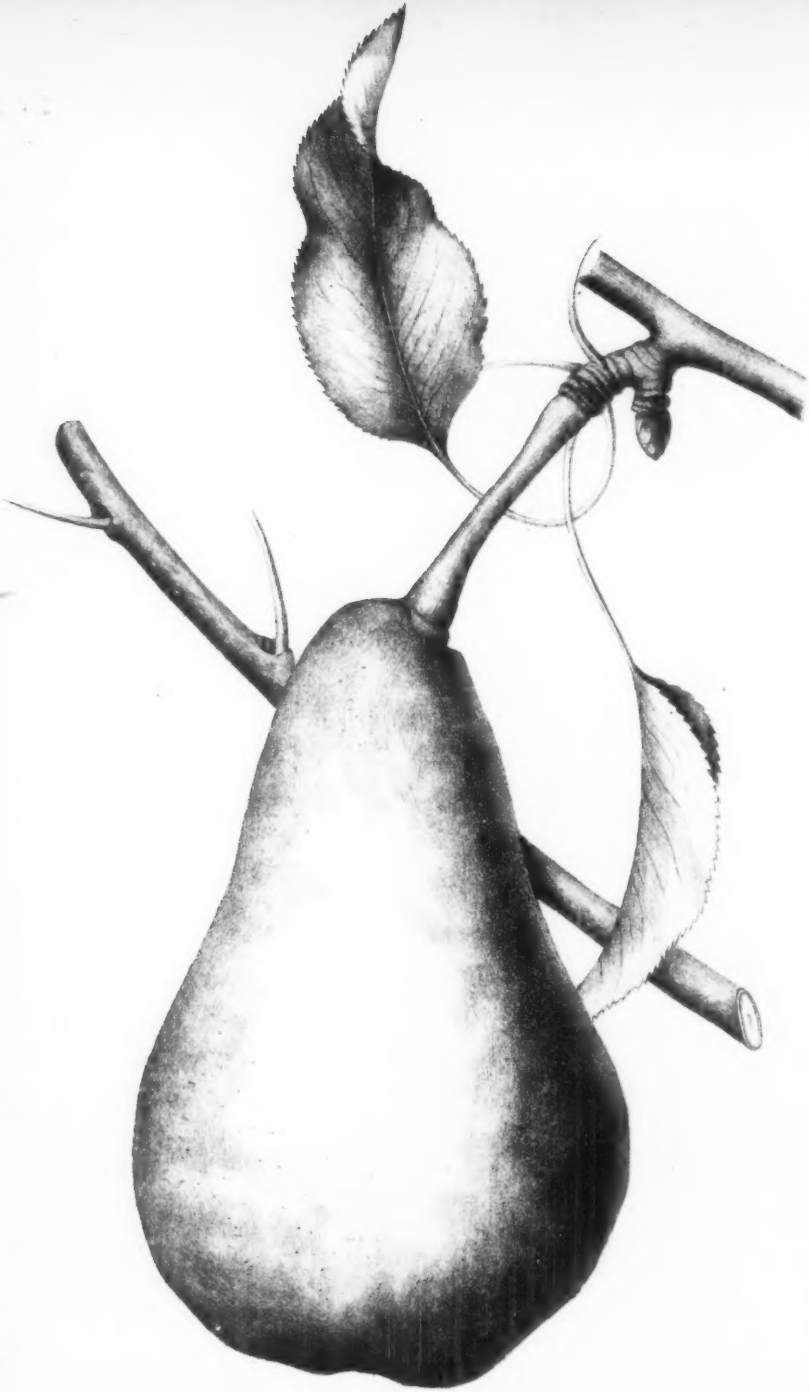
The Corresponding Secretary reports having in his possession four ears of the "old colony sweet corn" and scions of the "*Sheldon* Pear," and that they are ready for distribution. He also reports having two apples in his possession, received from John Gorges, of Philadelphia county, called the "*Freeze and Thaw;*" he also has grafts of the same for distribution.

William Cawley, Recording Secretary.

---

Chester County (Penn.) Horticultural Society.—At the annual meeting in March, the following named officers were elected:

*President*—JOHN RUTTER.
*Vice Presidents*—James H. Ball, Amos H. Darlington.
*Recording Secretary*—Isaac D. Pyle.
*Corresponding Secretary*—Joseph P. Wilson.
*Treasurer*—John Marshall.



DUCHESSE D' ORLEANS PEAR .

MOSS OR SUMMER HOUSES.